THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 1 JANUARY, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 1 to 44

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.

Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

STATE SOCIETY PLAN

Accident and Health Insurance

The MEDICAL SOCIETY OF NEW JERSEY has officially selected the plan of our Company for Accident and Health Insurance and the policy is nowavailable to Society members.

BRIEF OUTLINE OF COVERAGE

Accidental Bodily Injury Benefits —Full monthly benefit for total disability, from FIRST DAY, limit 60 months. One-half monthly benefit for partial disability, limit 6 months. Limit of time for total and partial combined 60 months.

Sickness Benefits —Full monthly benefit for total disability, commencing with EIGHTH DAY of disability, limit 24 months, house confinement not required.

Arbitration Clause —The Committee on Medical Defense and Insurance of The Medical Society of New Jersey are the SOLE arbiters in the event of any claim disagreement between Company and policyholder.

Cancellation Clause —Cancellation Clause, Standard Provision No. 16, not included in policy. The Company reserves the right to decline to renew on the following grounds only:

A. Non-payment of premium.
B. If the insured retires or ceases to be actively engaged in the medical profession.
C. If the insured ceases to be an active member of The Medical Society of New Jersey.
D. If renewal is refused on all policies issued to all members of the Society, in which event 60 days prior notice in writing must be given.

PREMIUM RATES

(Applicable to ages at entry and attained at annual renewal of insurance)
Ages shown below signify next birthday.

Monthly Benefits	Disbursement Benefits	ANNUAL RATES* Ages up to 50	Ages 51 to 60	Ages 61 to 65**
$100.00	$ 5000.	$ 29.50	$ 34.00	$ 43.00
150.00	7500.	43.60	50.35	63.85
200.00	10000.	57.70	66.70	84.70
300.00	15000.	85.90	99.40	126.40
400.00	20000.	114.10	132.10	168.10

* Premiums may be paid half-yearly or quarterly, pro-rata.
* All rates above INCLUDE $1000 Accidental Death Benefit. Additional Accidental Death Benefit up to $4000 (making a total of $5000) may be procured for an additional annual premium of $1.30 per $1000.
Coverage for hospitalization and nursing fees is available at a small additional premium.
** Although the age limit for acceptance of risks is the 65th birthday, once issued there is no termination age limit for renewal and the rates of the last age group remain stationary.

This Company has been in business more than fifty years and is one of the leading writers of Accident and Health Insurance, with a surplus to policy holders of more than four million dollars.

If you are not now insured under this plan or if you want further information, communicate with the undersigned managers.

Issued Exclusively by

NATIONAL CASUALTY COMPANY

Through

E. and W. BLANKSTEEN, Mgrs.

Authorized Disability Insurance Representatives of The Medical Society of New Jersey

75 MONTGOMERY STREET JERSEY CITY 2, N. J.

DElaware 3-4340

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116-118 LINCOLN AVE., ORANGE, N. J.

EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MRS. EDITH L. MADDEN, *Acting Exective Officer and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor* .....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor* .....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care. .....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY } **790 BROAD ST., NEWARK, N. J.**
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, ALDRICH C. CROWE .....Ocean City
President-Elect, SIGURD W. JOHNSEN .....Passaic
First Vice-President, HARROLD A. MURRAY .....Newark
Second Vice-President, HENRY B. DECKER .....Camden
Secretary, MARCUS H. GREIFINGER .....Newark
Treasurer, GEORGE J. YOUNG .....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953) .....Atlantic City
ELTON W. LANCE, *Secretary* (1952) .....Rahway
ALDRICH C. CROWE .....Ocean City
SIGURD W. JOHNSEN .....Passaic
HARROLD A. MURRAY .....Newark
HENRY B. DECKER .....Camden
MARCUS H. GREIFINGER .....Newark
GEORGE J. YOUNG .....Morristown
WILLIAM F. COSTELLO (1953) .....Dover
WILLIAM C. WILENTZ (1953) .....Perth Amboy
JOSEPH G. COLEMAN (1953) .....Hamburg
L. SAMUEL SICA (1951) .....Trenton
DAVID W. GREEN (1951) .....Salem
REUBEN L. SHARP (1951) .....Camden
J. LAWRENCE EVANS (1951) .....Woodcliff
ROYAL A. SCHAAF (1952) .....Newark
WILLIAM E. DODD (1952) .....Beach Haven

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1951)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....BARCLAY S. FUHRMANN, Flemington (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1951)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1951) .....Hoboken
WILLIAM F. COSTELLO (1951) .....Dover
J. WALLACE HURFF (1952) .....Newark
DAVID B. ALLMAN (1952) .....Atlantic City
ELMER P. WEIGEL (1952) .....Plainfield
Vacancy (1952)

Alernates

ALBERT B. KUMP (1951) .....Bridgeton
WALTER F. PHELAN (1951) .....Elizabeth
JOHN H. ROWLAND (1952) .....New Brunswick
FRANK W. KONZELMANN (1952) .....Absecon
HERSCHEL PETTIT (1952) .....Ocean City
L. SAMUEL SICA (1952) .....Trenton

DELEGATES TO OTHER STATES

Delegates

Connecticut—C. BYRON BLAISDELL (1951).....Long Branch
New York—ALDRICH C. CROWE (1951) .....Ocean City

Alternates

Connecticut—BLACKWELL SAWYER (1951) .....Toms River
New York—D. WARD SCANLAN (1951) .....Atlantic City

OFFICERS OF SCIENTIFIC SECTIONS

Allergy

EDWARD E. SEIDMON, *Chairman* .....Plainfield
LEWIS W. BROWN, *Secretary* .....Newark

Anesthesiology

WILLIAM J. GLEESON, *Chairman* .....Jersey City
JOSEPH P. CLEARY, *Secretary* .....Minotola

Chest Diseases

PAUL K. BORNSTEIN, *Chairman* .....Asbury Park
SAMUEL COHEN, *Secretary* .....Jersey City

Clinical Pathology

WILLIAM G. BERNHARD, *Chairman* .....Short Hills
WILLIAM W. HERSOHN, *Secretary* .....Atlantic City

Dermatology

JACOB M. SCHILDKRAUT, *Chairman* .....Trenton
BART M. JAMES, *Secretary* .....Newark

Eye, Ear, Nose and Throat

CHARLES W. BARKHORN, *Chairman* .....Newark
ROBISON D. HARLEY, *Secretary* .....Atlantic City

Gastro-Enterology and Proctology

FRANK S. FORTE, *Chairman* .....Newark
SAMUEL RUBIN, *Secretary* .....Asbury Park

General Practice

SAMUEL L. KAMAN, *Chairman* .....Atlantic City
EDWIN ROSNER, *Secretary* .....Collingswood

Heart Diseases

NORMAN REITMAN, *Chairman* .....New Brunswick
LOUIS F. ALBRIGHT, *Secretary* .....Spring Lake

Medicine

FRANK J. ALTSCHUL, *Chairman* .....Long Branch
J. JAMES SMITH, *Secretary* .....Elizabeth

Metabolism

EVERETT O. BAUMAN, *Chairman* .....Newark
JOSEPH SKWIRSKY, *Secretary* .....Newark

Neuropsychiatry

LEWIS H. LOESER, *Chairman* .....Newark
ROBERT S. GARBER, *Secretary* .....Trenton

Obstetrics and Gynecology

JOHN D. PREECE, *Chairman* .....Trenton
BENJAMIN DAVERSA, *Secretary*, ...Spring Lake

Orthopedics

PAUL J. FINEGAN, *Chairman* .....Trenton
RAPHAEL R. GOLDENBERG, *Secretary* .....Paterson

Pediatrics

MARTIN A. QUIRK, *Chairman* .....Red Bank
MARTIN GREEN, *Secretary* .....Atlantic City

Radiology

RAPHAEL POMERANZ, *Chairman* .....Newark
PETER GIANQUINTO, *Secretary* .....Newark

Rheumatism

ALFRED D. DENNISON, JR., *Chairman* .....Maplewood
IRVING L. SPERLING, *Secretary* .....Newark

Surgery

V. EARL JOHNSON, *Chairman* .....Atlantic City
STUART Z. HAWKES, *Secretary* .....Newark

Urology

ROBERT L. McKIERNAN, *Chairman* .....New Brunswick
IRWIN MARKOWITZ, *Secretary* .....Jersey City

STANDING COMMITTEES

Finance and Budget

L. Samuel Sica (1951) ..... Trenton
David B. Allman (1953) ..... Atlantic City
William F. Costello (1955) ..... Dover
Luke A. Mulligan (1956) ..... Leonia
Anthony J. Conty (1952) ..... Union City
Herschel Pettit (1954) ..... Ocean City
George J. Young, *Ex-Officio* ..... Morristown

Medical Defense and Insurance

J. Wallace Hurff, *Chairman* (1953) ..... Newark
Joseph J. Ruvane (1952) ..... Jersey City
Arthur J. Ganley (1952) ..... East Orange
George T. Tracy (1953) ..... Beverly
Benjamin F. Slobodien (1951) ..... Perth Amboy
Rudolph C. Schretzmann (1953) ..... Englewood
James F. Gleason (1951) ..... Ventnor

Publication

J. Lawrence Evans, Jr., *Chairman* (1951) ..... Leonia
Joseph E. Mott (1952) ..... Paterson
Ralph M. L. Buchanan (1953) ..... Phillipsburg
Marcus H. Greifinger, *Ex-Officio* ..... Newark
Henry A. Davidson, *Adviser* ..... Flemington

Scientific Work

First District—John W. Gray (1954) ..... Newark
Second District—Wm. W. Maver, *Chm.* (1955) ... Jersey City
Third District—Patrick H. Corrigan (1951) ..... Trenton
Fourth District—S. Emlen Stokes (1952) ..... Moorestown
Fifth District—Harold S. Davidson (1953) ..... Atlantic City

Honorary Membership

Spencer T. Snedecor, *Chairman* (1953) ..... Hackensack
Royal A. Schaaf (1951) ..... Newark
Joseph F. Londrigan (1952) ..... Hoboken

Woman's Auxiliary

Lewis C. Fritts, *Chairman* (1953) ..... Somerville
Norman Nathanson (1952) ..... Long Branch
Baxter H. Timberlake (1953) ..... Ventnor
Robert B. Walker (1951) ..... New Brunswick
Lloyd A. Hamilton (1951) ..... Lambertville

Medical Education

Henry B. Decker, *Chairman* (1952) ..... Camden
Samuel A. Cosgrove (1955) ..... Jersey City
Ernest F. Purcell (1951) ..... Trenton
Stuart Z. Hawkes (1954) ..... Newark
Francis M. Clarke (1953) ..... New Brunswick
Reuben L. Sharp ..... Camden

Annual Meeting

Asher Yaguda, *Chairman* (1951) ..... Newark
Harrold A. Murray (1952) ..... Newark
Joseph P. Donnelly (1952) ..... Jersey City
Johannes F. Pessel (1953) ..... Trenton
William W. Hersohn (1953) ..... Margate City

Scientific Program

Johannes F. Pessel, *Chairman* ..... Trenton
Chairmen and Secretaries of the Scientific Sections

Scientific Exhibit

William W. Hersohn, *Chairman* ..... Margate City
Robert B. Durham ..... Atlantic City
Paul Cutler ..... Atlantic City

WELFARE COMMITTEE

Samuel Blaugrund, *Chairman* ..... Trenton
Aldrich C. Crowe, *Ex-Officio* ..... Ocean City
Marcus H. Greifinger, *Ex-Officio* ..... Newark
Edward Guion (Atlantic County) ..... Pleasantville
Joseph McGahn ..... Atlantic City
Baxter H. Timberlake ..... Ventnor
Rudolph C. Schretzmann (Bergen County) .. West Englewood
John L. Olpp ..... Tenafly
Edward V. Sexton ..... Teaneck
William E. Bray (Burlington County) ..... Pemberton
Paul Sparks ..... Burlington
Oram R. Kline (Camden County) ..... Camden
Edward A. Y. Schellenger ..... Camden
William Braun ..... Camden
Samuel B. Hughes (Cape May County) ..... Wildwood
John B. Townsend ..... Ocean City
Albert B. Kump (Cumberland County) ..... Bridgeton
Mary Bacon ..... Bridgeton
Kenneth E. Gardner (Essex County) ..... Bloomfield
Joseph I. Echikson ..... Newark
Raphael E. Remondelli ..... Newark
Louis K. Collins (Gloucester County) ..... Glassboro
Isaac N. Patterson ..... Westville
Chester I. Ulmer ..... Gibbstown
Hugh H. Tyndall (Hudson County) ..... Weehawken
Vincent P. Butler ..... Jersey City
Raymond S. Driscoll ..... Bayonne
Raymond J. Germain (Hunterdon County) ..... Clinton
Arthur M. Jenkins ..... Frenchtown
Donald C. Lynch (Mercer County) ..... Trenton
John L. Wikoff ..... Trenton
R. John Cottone ..... Trenton
Ralph J. Faulkingham (Middlesex County) .. New Brunswick
C. Howard Rothfuss ..... Woodbridge
Joseph H. Kler ..... New Brunswick
Harry Brindle (Monmouth County) ..... Asbury Park
C. Byron Blaisdell ..... Long Branch
John C. Clark ..... Asbury Park
F. Clyde Bowers (Morris County) ..... Mendham
William G. Talmage ..... Succasunna
Salvatore Giordano ..... Morristown
Blackwell Sawyer (Ocean County) ..... Toms River
Raymond A. Taylor ..... Lakewood
H. Hale Hollingsworth (Passaic County) ..... Clifton
Joseph E. Mott ..... Paterson
Morris Joseph ..... Passaic
Harry F. Suter (Salem County) ..... Penns Grove
John Madara ..... Salem
Lewis C. Fritts (Somerset County) ..... Somerville
George E. Barbour ..... Somerville
James H. Spencer (Sussex County) ..... Newton
Jesse McCall ..... Newton
Frederic W. Lathrop (Union County) ..... Plainfield
Herschel S. Murphy ..... Roselle
Edward G. Bourns ..... Westfield
Ralph M. L. Buchanan (Warren County) ..... Phillipsburg
Timothy H. Spillane ..... Phillipsburg

SUBCOMMITTEES TO THE WELFARE COMMITTEE

Legislation

C. Byron Blaisdell, *Chairman* ..... Long Branch
H. Hale Hollingsworth ..... Clifton
Frederick S. Taber ..... New Brunswick
Adolph Wegrocki ..... Newark
R. John Cottone ..... Trenton
Baxter H. Timberlake ..... Ventnor
Walter F. Phelan ..... Elizabeth
James S. Shipman ..... Camden
Joseph F. Londrigan, *Executive Secretary* ..... Hoboken

Public Relations

Joseph E. Mott, *Chairman* ..... Paterson
John B. Townsend ..... Ocean City
Harry F. Suter ..... Penns Grove
Frank S. Forte ..... Newark
William H. McCallion ..... Elizabeth
Joseph R. Jehl ..... Clifton
William E. Bray ..... Pemberton
Arthur P. Trewhella ..... Jersey City
John L. Wikoff ..... Trenton
Charles Cunningham, Jr. ..... Vineland
William A. Doebele ..... Ocean City

SUBCOMMITTEES -Continued

Medical Practice

ALBERT B. KUMP, *Chairman* ..... Bridgeton
EDWARD T. LAWLESS ..... Upper Montclair
ANDREW C. RUOFF ..... Union City
FLORENTINE M. HOFFMAN ..... New Brunswick
HAROLD C. COX ..... Hightstown
H. WESLEY JACK ..... Camden
JOHN L. VARRIANO ..... Jersey City
ELMER J. ELIAS ..... Trenton
JOHN L. OLPP ..... Tenafly
WILLIAM K. HARRYMAN ..... Hackensack
D. WARD SCANLAN ..... Atlantic City
NATHAN SWERN ..... Trenton
HERSCHEL S. MURPHY ..... Roselle
ASHER YAGUDA ..... Newark

Public Health

JOSEPH I. ECHIKSON, *Chairman* ..... Newark
CARLYLE MORRIS ..... Metuchen
WILLIAM O. WUESTER ..... Hillside
JEROME G. KAUFMAN ..... Newark
FREDERIC W. LATHROP ..... Plainfield
REINHOLD W. TERKUILE ..... Ridgewood
H. EUGENE READING ..... Paterson
JOHN D. PREECE ..... Trenton
HARRISON F. ENGLISH ..... Trenton
RALPH M. L. BUCHANAN ..... Phillipsburg
ELTON W. LANCE ..... Rahway
CHRISTIAN P. SEGARD ..... Leonia
ABRAHAM E. JAFFIN ..... Jersey City
ROBERT L. MCKIERNAN ..... New Brunswick
ARTHUR SEWALL ..... Bridgeton

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON PUBLIC HEALTH

Adult Disease Control

CARLYLE MORRIS, *Chairman* ..... Metuchen
FREDERICK HNAT ..... Elizabeth
NORMAN L. MURRAY ..... Summit
BAXTER A. LIVENGOOD ..... Woodbury
MERTON L. GRISWOLD, JR. ..... Plainfield
VICTOR KNAPP ..... Asbury Park

Cancer Control

WILLIAM O. WUESTER, *Chairman* ..... Elizabeth
WILLIAM E. BRAY ..... Pemberton
JAMES S. GALLO ..... Paterson
OTTO R. HOLTERS ..... Asbury Park
JOSEPH I. ECHIKSON ..... Newark
W. JAMES MARQUIS ..... East Orange
H. WESLEY JACK ..... Camden
JOSEPH H. KLER ..... New Brunswick
JOHN L. OLPP ..... Tenafly
FRANK W. KONZELMANN ..... Absecon
NICHOLAS M. ALTER ..... Jersey City
FRANK M. MASTROIANNI ..... Roselle Park
GEORGE P. KOECK ..... Newark
VICTOR B. SEIDLER ..... Montclair
SALVATORE GIORDANO ..... Morristown

Consultants

CARL E. WEIGELE (Dept. of Health) ..... Trenton
EMIL FRANKEL, Ph.D. (Dept. of Inst. & Agencies) ..... Trenton
MR. CHARLES C. HANSBURY (N. J. Cancer Society) ..... Newark

Cardio-Vascular Diseases

JEROME G. KAUFMAN, *Chairman* ..... Newark
HARRY BLOCH ..... Elizabeth
NORMAN REITMAN ..... New Brunswick
HARVEY E. NUSSBAUM ..... Newark
LOUIS F. ALBRIGHT ..... Spring Lake
FRANK J. ALTSCHUL ..... Long Branch
HAROLD K. EYNON ..... Camden
G. BARTON BARLOW ..... Englewood
THOMAS J. WHITE ..... Jersey City
CLARENCE L. ANDREWS ..... Atlantic City
ROBERT B. DURHAM ..... Atlantic City
JOHN A. KINCZEL ..... Trenton
ROYAL S. SCHAAF ..... Newark

Chest Diseases

ABRAHAM E. JAFFIN, *Chairman* ..... Jersey City
J. S. D. EISENHOWER ..... Wildwood
MARCUS W. NEWCOMB ..... Browns Mills
JOSEPH A. SMITH ..... Glen Gardner
MARTIN H. COLLIER ..... Camden
HAROLD S. HATCH ..... Morristown
RUFUS R. LITTLE ..... Oradell
CHARLES HYMAN ..... Atlantic City
PAUL KLEMPNER ..... Trenton
HENRY A. BRODKIN ..... Newark
HOMER H. CHERRY ..... Paterson
JOHN E. RUNNELLS ..... Scotch Plains
A. JOSEPH HUGHES ..... Camden
PAUL GEARY ..... Plainfield
FREDERIC J. QUIGLEY ..... Jersey City

Consultant

MR. WILLIAM H. MACDONALD (Dept. of Health) ..... Trenton

Child Health

FREDERICK W. LATHROP, *Chairman* ..... Plainfield
GEORGE J. MCDONNELL ..... Freehold
ABRAM L. VAN HORN ..... Newark
EDWARD P. DUFFY, JR. ..... Belleville
HAROLD F. TIDWELL ..... West New York
HARROLD A. MURRAY ..... Newark
WILLIAM F. MATTHEWS ..... Montclair
WALTER L. MITCHELL, JR. ..... Newark
GEOFFREY W. ESTY ..... Westfield
WILLIAM L. RUMSEY, JR. ..... Elizabeth
JOSEPH F. RAFFETTO ..... Asbury Park
GRACE M. KAHRS ..... Newark
JULIUS LEVY ..... East Orange

Conservation of Vision and Hearing

REINOLD W. TERKUILE, *Chairman* ..... Ridgewood
GEORGE F. WORCESTER ..... Englewood
JAMES S. SHIPMAN ..... Camden
ROBISON D. HARLEY ..... Atlantic City
HOBART M. AGNEW ..... Montclair
OTTO S. HENSLE ..... Hackensack

Maternal Welfare

JOHN D. PREECE, *Chairman* ..... Trenton
SAMUEL A. COSGROVE ..... Jersey City
ROBERT A. MACKENZIE ..... Asbury Park
STANTON H. DAVIS ..... Plainfield
GEORGE B. GERMAN ..... Merchantville
RAYMOND T. POTTER ..... East Orange
GERALD W. HAYES ..... East Orange
J. CARLISLE BROWN ..... Atlantic City
FELIX H. VANN ..... Englewood
PERCY L. SMITH ..... Trenton
HERSCHEL S. MURPHY ..... Roselle
THEODORE K. GRAHAM ..... Paterson

Mental Hygiene

HARRISON F. ENGLISH, *Chairman* ..... Trenton
THEODORE R. ROBIE ..... East Orange
LEWIS H. LOESER ..... Newark
LUMAN H. TENNEY ..... Princeton
DAVID W. MCCREIGHT ..... Marlboro
HENRY A. DAVIDSON ..... Flemington
ROLAND J. LYNCH ..... Secaucus
J. BERKELEY GORDON ..... Marlboro
EDWARD P. DUFFY, JR. ..... Belleville

Consultant

EDWARD J. HUMPHREYS (Dept. of Inst. & Agencies) ..... Trenton

Rehabilitation

H. EUGENE READING, *Chairman* ..... Paterson
JOHN J. FLANAGAN ..... Newark
HENRY H. KESSLER ..... Newark
HENRY BRIGGS ..... East Orange
PAUL J. FINEGAN ..... Trenton
FREDERICK G. DILGER ..... Hackensack
DAVID B. ALLMAN ..... Atlantic City
ELMER P. WEIGEL ..... Plainfield
OSWALD R. CARLANDER ..... Camden
ROBERT J. NEVILLE ..... Hackensack
JOSEPH J. BUTENAS ..... Elizabeth

Rural Health

RALPH M. L. BUCHANAN, *Chairman* ..... Phillipsburg
R. WINFIELD BETTS ..... Medford
CARL N. WARE ..... Shiloh
JOHN W. HARDY ..... Farmingdale
JOHN B. HOPPER ..... Mendham
C. SPENCER DAVISON ..... Salem
LEWIS C. FRITTS ..... Somerville
JOHN B. FUHRMANN ..... Flemington
LESTER R. EDDY ..... Sussex
WILLIAM G. HARRIS ..... Mullica Hill

PUBLIC HEALTH ADVISORY COMMITTEES—Continued

School Health

Elton W. Lance, *Chairman* ..... Rahway
Norman J. Quinn ..... Atlantic City
Grace M. Kahrs ..... Newark
William V. Carroll ..... Trenton
Frederick N. Bunnell ..... Barnegat
Frank Bartolini ..... Washington
Estelle T. Milliser ..... Westfield

Tropical Diseases

Christian P. Segard, *Chairman* ..... Leonia
Frank J. Altschul ..... Long Branch
Arturo R. Casilli ..... Elizabeth

Venereal Disease Control

Robert L. McKiernan, *Chairman* ..... New Brunswick
Baxter A. Livengood ..... Woodbury
Raphael S. Cantini ..... Plainfield

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON MEDICAL PRACTICE

Anesthesiology

Edward T. Lawless, *Chairman* ..... Upper Montclair
Leo J. Fitzpatrick ..... West Englewood
Irving R. Hayman ..... Paterson
Durant K. Charleroy ..... Trenton
Herman I. Roseman ..... Glen Ridge
Lester W. Netz ..... Hackensack
Abraham L. Dear ..... Newark

General Practice

D. Ward Scanlan, *Chairman* ..... Atlantic City
G. Ruffin Stamps ..... Atlantic City
Winton H. Johnson ..... Hackensack
Luis E. Viteri ..... Mt. Holly
Isaac N. Patterson ..... Westville
Paul Klempner ..... Trenton
Morton F. Trippe ..... Asbury Park
Runkle F. Hegeman ..... Somerville
Aaron H. Horland ..... Newark

Hospital Relationships

Florentine M. Hoffman, *Chairman* ..... New Brunswick
J. Harris Underwood ..... Woodbury
Watson B. Morris ..... Springfield
J. Lawrence Evans ..... Woodcliff
Leonard S. Ellenbogen ..... Atlantic City
John F. Johnson ..... Trenton
Francis M. Clarke ..... New Brunswick

Laboratory Medicine

Asher Yaguda, *Chairman* ..... Newark
William G. Bernard ..... Newark
Edwin H. Albano ..... East Orange
William W. Hersohn ..... Atlantic City
Thomas K. Rathmell ..... Trenton
A. Hobson Davis ..... Paterson

Nursing

H. Wesley Jack, *Chairman* ..... Camden
A. Charles Zehnder ..... Newark
Elizabeth R. Brackett ..... Nutley
Norman W. Burritt ..... Summit
M. Browne Holoman ..... Margate

Pharmaceutical Problems

John L. Varriano, *Chairman* ..... Jersey City
Chester I. Ulmer ..... Gibbstown
Louis Schneider ..... Newark
George M. Knowles ..... Hackensack
Edward F. Duschock ..... Perth Amboy

Physical Medicine

Elmer J. Elias, *Chairman* ..... Trenton
Bror S. Troedsson ..... Orange
Thomas P. McConaghy ..... Camden
James Hanrahan ..... Elizabeth
Frank B. Lane Haines ..... Ocean City

Radiology

John L. Olpp, *Chairman* ..... Tenafly
Harry R. Brindle ..... Asbury Park
Peter Gianquinto ..... Newark
Benjamin Copleman ..... Perth Amboy
Harry J. Perlberg ..... Jersey City
William H. Seward ..... Orange
Winthrop H. Hall ..... Westfield

Welfare Services

Harold C. Cox, *Chairman* ..... Hightstown
Richard T. Buckley, Jr. ..... Maple Shade
John F. Johnson ..... Trenton
Donald G. Reynolds ..... Freehold

Workmen's Compensation and Industrial Health

William K. Harryman, *Chairman* ..... Hackensack
Walter W. Mockett ..... Maywood
J. Mallory Carlisle ..... Westfield
John J. Haney ..... Trenton
Daniel F. Featherston ..... Asbury Park
Ralph A. Young ..... Linden

SPECIAL COMMITTEES

Civil Medical Defense

Andrew F. McBride, Jr., *Chairman* ..... Paterson
David B. Allman, *Vice-Chairman* ..... Atlantic City
Gerald W. Sinnott ..... Jersey City
Daniel Bergsma ..... Trenton
Stuart Z. Hawkes ..... Newark
Stewart Alexander ..... Park Ridge
G. Ruffin Stamps ..... Atlantic City
President, President-Elect, First and Second Vice-Presidents ..... *Ex-Officio*

Physician Resources Committee

William G. Herrman, *Chairman* ..... Deal
L. Samuel Sica, *Vice-Chairman* ..... Trenton
Andrew F. McBride, Jr. ..... Paterson
Frederick S. Taber ..... New Brunswick
Albert B. Kump ..... Bridgeton
F. Clyde Bowers ..... Mendham

Emergency Education Program

Harrold A. Murray, *Chairman* ..... Newark
Aldrich C. Crowe ..... Ocean City
Sigurd W. Johnsen ..... Passaic
Henry B. Decker ..... Camden
Marcus H. Greifinger ..... Newark
George J. Young ..... Morristown
David B. Allman ..... Atlantic City
William F. Costello ..... Dover

WOMAN'S AUXILIARY

Officers

President, MRS. R. JOHN COTTONE ..... Trenton
President-Elect, MRS. THOMAS H. McGLADE.. West Collingswood
First Vice-President, MRS. FRANK FORTE..... Newark
Second Vice-Pres. MRS. PAUL E. RAUSCHENBACH, JR... Paterson
Rec. Secretary, MRS. BERTRAM J. L. SAUERBRUN.... Elizabeth
Corresponding Secretary, MRS. GEORGE A. CORIO..... Trenton
Treasurer, MRS. ASHER YAGUDA ..... Newark

Directors

MRS. WILLIAM L. RUMSEY ..... Elizaheth
MRS. D. LEO HAGGERTY ..... Trenton
MRS. WILLIAM C. V. WELLS ..... Delanco
MRS. FRANK L. PERRY ..... Woodstown
MRS. EDWARD H. DYER ..... Ventnor
MRS. WILLIAM J. GLEESON ..... Jersey City

OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	SECRETARY	REPORTER
ATLANTIC	G. Ruffin Stamps, Atlantic City	Louis Rosenherg, Atlantic City	Leonard B. Erher, Atlantic City
BERGEN	LeRoy W. Black, Rutherford	John E. McWhorter, Englewood	John E. McWhorter, Englewood
BURLINGTON	R. Winfield Betts, Medford	Richard T. Buckley, Maple Shade	Freeman W. Metzer, Riverside
CAMDEN	Oram R. Kline, Camden	William Braun, Camden	Louis G. McAfoos, Collingswood
CAPE MAY	Paul L. Yingling, Ocean City	Robert A. Cornwell, Ocean City	Marcus A. Fath, Wildwood
CUMBERLAND	Carl N. Ware, Shiloh	Mary Bacon, Bridgeton	Norman Henry, Vineland
ESSEX	Otto G. Matheke, Newark	Marcus H. Greifinger, Newark	Elizabeth Brackett, Newark
GLOUCESTER	A. Guy Campo, Westville	Clarence A. Bowersox, Woodhury	Louis K. Collins, Glassboro
HUDSON	Noah Meyerson, Jersey City	Joseph P. Donnelly, Jersey City	Harry J. Perlberg, Jersey City
HUNTERDON	Lloyd A. Hamilton, Lamhertville	John B. Fuhrmann, Flemington	Henry A. Davidson, Flemington
MERCER	Harold S. Magee, Trenton	Harrison F. English, Trenton	Harrison F. English, Trenton
MIDDLESEX	Marshall Smith, New Brunswick	Charles F. Church, New Brunswick	Frank L. Paret, New Brunswick
MONMOUTH	Samuel Edelson, Asbury Park	Anthony J. DeVita, Port Monmouth	Lester A. Barnett, Ashury Park
MORRIS	J. Henry Harrington, Rockaway	Jack L. Voss, Morristown	Theodore R. Failmezger, Madison
OCEAN	Pierre J. Nyvall, Barnegat	Raymond A. Taylor, Lakewood	Sidney Alpert, Lakewood
PASSAIC	John E. Leach, Paterson	Floyd Fortuin, Paterson	Leopold E. Thron, Paterson
SALEM	August Jonas, Salem	Harry F. Suter, Penns Grove	John S. Madara, Salem
SOMERSET	William J. Alhrecht, Somerville	John L. Spaldo, Somerville	John L. Spaldo, Somerville
SUSSEX	Leo B. Drake, Franklin	John J. Piampiano, Hamhurg	Martin I. Kirschner, Vernon
UNION	Herschel S. Murphy, Roselle	Edward G. Bourns, Westfield	Emanuel M. Satulsky, Elizabeth
WARREN	Joseph Humhert, Stewartsville	Ray C. Cooper, Washingon	Louis Genninger, Phillipsburg

CHANGE OF ADDRESS

In the event of a change of address or failure to receive THE JOURNAL regularly fill out this coupon and mail at once to

THE MEDICAL SOCIETY OF NEW JERSEY, 315 W. State St., Trenton 8, N. J.

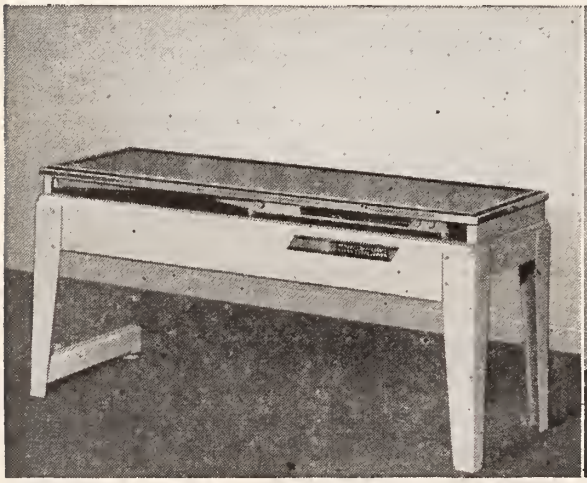
Change my address on mailing list

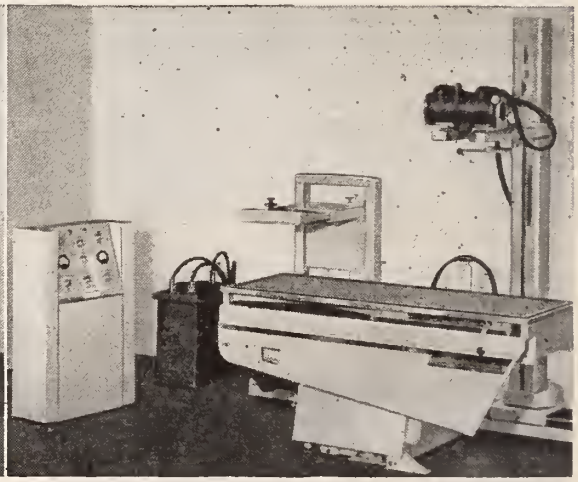
From.....

To.....

*Date*_____ *Signed*..... *M.D.*

GE MAXICON meets the medical profession's long-felt need for x-ray equipment developed to grow with an expanding practice, providing just the x-ray facility required . . . unit by unit as needed!





From this . . . to this . . . in a few easy steps!

Bucky table to motor-driven combination unit! Comprised of a number of components that can be assembled in various combinations — the Maxicon series have a wealth of utility wherever diagnostic x-ray is employed. The Maxicon covers the range of diagnostic x-ray apparatus from the horizontal x-ray table to the 200-ma, two-tube, motor-driven combination unit.

Check the remarkable flexibility of the Maxicon. Discover what it can do for you. Ask your GE representative or write

GENERAL ELECTRIC
X-RAY CORPORATION

Direct Factory Branches:

NEWARK — 10 Third Street

PHILADELPHIA — 1624 Hunting Park Avenue

POSITIVE CLINICAL FINDINGS IN CERTAIN

In Amebiasis (E. histolytica)

"In daily doses of 1.0 and 2.0 grams by mouth for ten days, terramycin therapy resulted in the disappearance of E. histolytica from the stools of all but one of 22 patients. Parasitic relapse occurred in this individual on the eleventh day after treatment, whereas in the remaining 21 subjects, the stools have remained negative to date."

Most, H., and Van Assendelft, F.:
Ann. New York Acad. Sc. 53:427 (Sept. 15) 1950.

CRYSTALLINE

Terra

Clinical findings covering a wide range of bacterial and rickettsial as well as several protozoan infections indicate that:

1. *Terramycin may be highly effective even when other antibiotics fail.*
2. *Terramycin may be well tolerated even when other antibiotics are not.*

INFECTIONS OF THE GASTROINTESTINAL TRACT

when "eating for two" ...plenty of citrus fruits

Most obstetricians today insist that their mothers ingest plenty of vitamin C, particularly after the first trimester[1] (8 oz. citrus juice during pregnancy, 12 oz. while lactating).[6] Pregnancy is thus made safer because toxemia is thereby reduced.[7] Also, more babies are born normally and with a higher birth weight, while premature and still births are fewer.[3,4] In addition, both maternal and infant health is improved postpartum when an adequate vitamin C regimen has been followed throughout pregnancy.[2] Most mothers enjoy the flavor of fresh Florida citrus fruits (so rich in vitamin C and containing other nutrients*), as well as the energy pick-up provided by their easily assimilable fruit sugars.[5]

* * *

**Citrus fruits—among the richest known sources of vitamin C—also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.*

FLORIDA CITRUS COMMISSION
LAKELAND, FLORIDA

References:

1. Burke, B. S. and Stuart, H. C.: J.A.M.A., 137:119, 1948. 2. Burke, B. S. et al.: Am. J. Obst. & Gynec., 46:38, 1943. 3. Burke, B. S. et al.: J. Nutrition, 26:569, 1943. 4. Javert, C. T. and Finn, W. F.: Texas State J. Med., 46:745, 1950. 5. McLester, J. S.: Nutrition and Diet in Health and Disease, Saunders, Phila., 4th ed., 1944. 6. National Research Council: "Recommended Food and Nutrition Board, Daily Allowances for Specific Nutrients," Wash., D. C., 1948. 7. People's League of Health: J. Lancet, 2:10, 1942.

FLORIDA
Oranges • Grapefruit
Tangerines

In a ***critical evaluation***

of drugs for treating

urinary tract infections

it has been noted that:

SULAMYD®

(Sulfacetimide)

"combines the features of good antibacterial activity, low toxicity, and rapid renal elimination resulting in high urinary level. . . . Sulfacetimide . . . has the advantage of high solubility even in the physiological acid range of the urine, thereby minimizing almost to a negligible point the danger of concrement formation. . . ."[1] Because of its wide antibacterial range it may be preferable to penicillin and streptomycin.[2] It is well tolcrated and remarkably free from side effects.[3]

DOSAGE: Therapeutic: 2 tablets t.i.d. for 10 days. Prophylactic: 1 tablet t.i.d.

SULAMYD Tablets 0.5 Gm. in bottles of 100 and 1000 tablets.

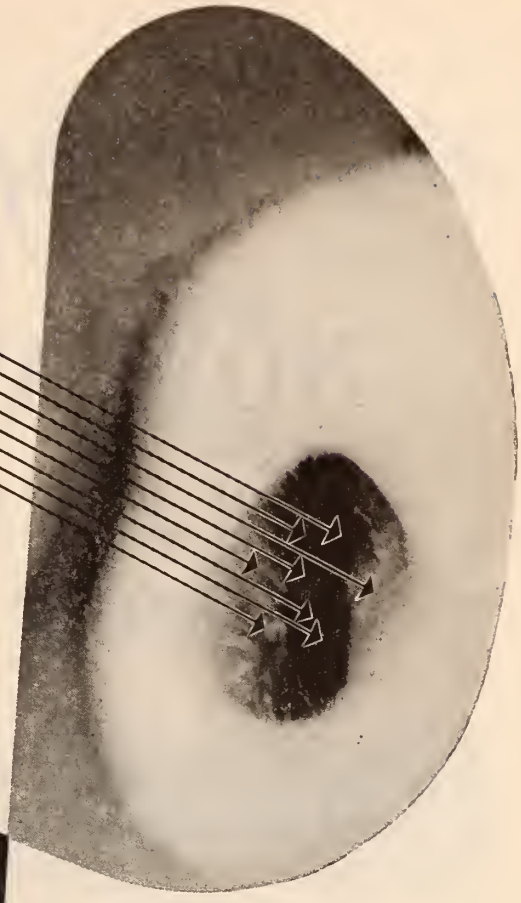
1. Nesbit, R. M., and Glickman, S. I.: J. Michigan State M. Soc. *46*:664, 1947.
2. Dodson, A. I.: West Virginia M.J. *45*:1, 1949.
3. Seneca, H.; Henderson, E., and Harvey, M.: J. Urol. *61*:1105, 1949.

SULAMYD

SCHERING

Schering CORPORATION · BLOOMFIELD, NEW JERSEY

open
the nasal passages



Swollen nasal mucous membranes . . . lacrimation . . . nasal discharge—the most acutely annoying manifestations of upper respiratory tract allergy or infection—respond quickly to the vasoconstrictive action of

neo-synephrine®
HYDROCHLORIDE

BRAND OF PHENYLEPHRINE HYDROCHLORIDE

decongestive for allergic rhinitis, colds, sinusitis

neo-synephrine is

prompt and prolonged in its decongestive action
effective on repeated application
virtually nonirritating
nonstimulating to central nervous system

Supplied in ¼% solution plain and aromatic, 1 oz. bottles.
Also 1% solution (when greater concentration is required), 1 oz. bottles,
and ½% water soluble jelly, ⅝ oz.

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

NEO-SYNEPHRINE, TRADEMARK REG. U. S. & CANADA

Cortone®

NOW AVAILABLE

for your daily practice

WITHOUT RESTRICTION

CORTONE* (Cortisone) is now available, through your usual source of medicinal supplies, without restriction. Pharmacists are prepared to fill your prescriptions for use of this remarkable hormonal substance in your daily practice. Hospitalization of individual patients is at the discretion of the physician.

Key to a New Era in Medical Science

Cortone®

ACETATE

(CORTISONE Acetate Merck)

(11-Dehydro-17-hydroxycorticosterone-21-acetate)

MERCK

MERCK & CO., INC.

Manufacturing Chemists

RAHWAY, NEW JERSEY

**CORTONE is the registered trade-mark of Merck & Co., Inc. for its brand of cortisone.*

nature's C...

for infant feeding

PHYTOTONE®
DIETARY SUPPLEMENT

1000% richer in *natural* Vitamin C than average orange juice

The dependable nutritional value of natural Vitamin C is fully established in infant nutrition... for in early life the delicate balance between metabolic requirements and nutritional intake must be carefully supervised.

In PHYTOTONE Vitamin C is provided in its complete and natural form as derived from natural plant sources... fruits and herbs which also provide natural Rutin, Vitamin K, Niacin and other factors of the Vitamin B Complex, as well as Pectin. High concentration of natural Vitamin C (120 mg. per fl. oz.) makes PHYTOTONE unusually efficacious as an infant feeding supplement. Its complete stability over long periods makes it unusually reliable. Routine use in early months of life helps avoid the greater tendency of very young infants to become allergic if orange juice is added to the diet too early.

PHYTOTONE is compatible with any infant formula... does not cause curdling of the milk. It may be added to the formula or to whole milk, fruit juices, or cereals. Recommended intake is 2 teaspoons per day until one year of age and then 1 tablespoon daily.

OTHER INDICATIONS: PHYTOTONE is also indicated to prevent or correct Vitamin C deficiency at any age, and as an adjunct to other indicated measures in debilitated or convalescent patients.

Adult dosage is one tablespoon before each meal and before retiring.

KEGAN LABORATORY, Inc.
ENGLEWOOD, NEW JERSEY

Sample and literature on request

Available at pharmacies in bottles of 8 fl. oz.

High Vitamin B_{12} Content... Another Reason for Liberal Meat Intake

According to rapidly accumulating clinical and laboratory observations, the daily ingestion of liberal quantities of meat can effect profound physiologic benefits due to the significant content of vitamin B_{12}, not only in liver and kidney, but also in muscle meats.

Muscle meat is a good source of the newly isolated vitamin B_{12}; liver and kidney are especially high in their vitamin B_{12} content, while plant foods are negligible sources of this nutrient.[1] By rat assay, the minimum amounts of vitamin B_{12} in muscle meat range from 0.5 to 3 mcg. per 100 Gm.; minimum values for beef liver and kidney are 15 and 20 mcg., respectively.[2]

B_{12} is among the most potent of known microbiologically active substances.[3] Animal studies indicate that it increases the ability of the normal mammal to utilize protein.[4] With a high protein diet, 0.01 mcg. of vitamin B_{12} per day was found to increase significantly the growth rate of B_{12} deficient rats. In another study, growth response of B_{12} depleted rats was proportional to the B_{12} in the ration within the critical range of 0.025 to 0.1 mcg. per rat day.[5]

About 1 mcg. of vitamin B_{12} daily, administered intramuscularly, constitutes an effective dose in pernicious anemia. In a recent clinical study of young children manifesting vitamin B_{12} deficiency as evidenced by malnutrition and growth failure, oral administration of 10 mcg. of vitamin B_{12} daily for eight weeks induced marked responses in growth; notable increases in vigor, alertness and better general behavior; and improved appetite.[6]

Here again is further evidence of the broad, over-all nutrient contribution meat makes to the dietary. Eaten two or three times daily, it supplies not only generous amounts of high quality protein, but also significant quantities of vitamin B_{12} and other essential B complex vitamins, and of iron.

---

(1) Schweigert B. S.: Significance of Vitamin B_{12} and Related Factors, J. Am. Dietetic Assoc. *26*:782 (Oct.) 1950.

(2) Lewis, U. J.; Register, U. D.; Thompson, H. T., and Elvehjem, C. A.: Distribution of Vitamin B_{12} in Natural Materials, Proc. Soc. Exper. Biol. & Med. *72*:479 (Nov.) 1949.

(3) Shorb, M. S.: Activity of Vitamin B_{12} for the Growth of Lactobacillus lactis, Science *107*:397 (Apr. 16) 1948.

(4) Hartman, A. M.; Dryden, L. P., and Cary, C. A.: The Role and Sources of Vitamin B_{12}, J. Am. Dietetic Assoc. *25*:929 (Nov.) 1949.

(5) Frost, D. V.; Fricke, H. H., and Spruth, H. C.: Rat Growth Assay for Vitamin B_{12}, Proc. Soc. Exper. Biol. & Med. *72*:102 (Oct.) 1949.

(6) Wetzel, N. C.; Fargo, W. C.; Smith, I. H., and Helikson, J.: Growth Failure in School Children as Associated with Vitamin B_{12} Deficiency—Response to Oral Therapy, Science *110*:651 (Dec. 16) 1949.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

American Meat Institute

Main Office, Chicago...Members Throughout the United States

the "Meteor" has a new powerhead

Now the Picker 15 MA "Meteor"—the versatile *quality* x-ray unit in the low-priced field, comes with a newly designed, self-contained x-ray tubehead *at no increase in price.*

This power-packed new head gives you greater radiographic speed, particularly for heavy body parts. It's sleek and compact—easier to position, easier to handle. The radiographic detail with its 2.0 mm. focal spot is comparable to that of far more costly units. And you can use the new "Meteor" on your ordinary house current—it draws only 15 amperes.

Now, more than ever, the pedigreed Picker "Meteor" offers peak value in low-priced x-ray units. For the story, call in your local Picker representative, or write us—

Picker X-Ray Corporation,
300 Fourth Avenue, New York City.

the Picker "Meteor"
combination x-ray apparatus

15 MA "Meteor" $1495.
60 MA "Meteor" 1995.

Picker x-ray

There are Picker Service Depots and Sales Offices in principal cities of the U.S. and Canada: all alertly at your service in providing x-ray apparatus, accessories, and supplies.

NEWARK 2 *(Northern)* **N. J.**, 972 Broad Street
MAPLEWOOD, N. J., 17 Van Ness Court
MATAWAN, N. J., 54 Edgemere Drive

PHILADELPHIA 4 *(Southern)* **PA.**, 103 S. 34 Street
NUTLEY, N. J., 226 Hillside Avenue
WALDWICK, N. J., 9 MacDougal Court

It is advisable to use a preparation whose action and potency are known.

Diefenbach, W. C., and Meneely, J. K., Jr.: Yale J. Biol. & Med. 21:421, 1949.

Uniform action . . . fully effective orally

PURODIGIN®

CRYSTALLINE DIGITOXIN, WYETH

PURODIGIN has uniform action . . . simplifying the problem of adjusting therapy to the needs of the individual patient.

PURODIGIN is fully active by mouth . . . because it is completely absorbed.

FOR FLEXIBILITY AND PRECISION OF DOSAGE, PURODIGIN is supplied in graduated potencies: Tablets of 0.1, 0.15 and 0.2 mg.

Wyeth®
WYETH
INCORPORATED
Philadelphia 3
Penna.

NOW PROOF . . . in an instant, Doctor, PHILIP MORRIS are LESS IRRITATING

Just Make This Simple Test:

1 . . . light up a PHILIP MORRIS

Take a puff—DON'T INHALE. Just s-l-o-w-l-y let the smoke come through your nose. Easy, isn't it? AND NOW . . .

2 . . . light up your present brand

DON'T INHALE. Just take a puff and s-l-o-w-l-y let the smoke come through your nose. Notice that bite, that sting? Quite a difference from PHILIP MORRIS!

YES, your own *personal experience* confirms the results of the clinical and laboratory tests.* With proof so conclusive, would it not be good practice to suggest PHILIP MORRIS to your patients who smoke?

PHILIP MORRIS

Philip Morris & Co., Ltd., Inc.
100 Park Avenue, New York 17, N. Y.

**Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245; N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592; Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

point of departure

for special

feeding cases...

Dryco is not only the point of departure for almost every type of infant formula—it is also in itself a valuable food for special cases. Dryco assures ample protein intake while its low fat ratio and moderate carbohydrate content minimize digestive disturbances.

The applicability of the Dryco formula is strikingly seen in an observation by Pitt: "The majority of cases of infant diarrhea, seen in private practice, are of such nature that changing the formula to one of low fat and low carbohydrate is all that is necessary to correct the condition..." Dryco is specifically recommended for use in these cases.*

In addition to formula flexibility, Dryco offers other advantages.

Dryco's special drying process makes it more easily digested by certain infants than the fresh milk from which it is made. It supplies more minerals, particularly more calcium, than a corresponding formula of whole milk, plus 2500 U.S.P. units of vitamin A and 400 U.S.P. units of vitamin D per reconstituted quart. Only vitamin C need be added. Each tablespoonful supplies 31½ calories. Readily reconstituted in cold or warm water.

Available at pharmacies in 1 and 2½ lb. cans.

**Pitt, C.K.: The Art and Science of Artificial Infant Feeding, J.M. Asso. Ala. 19:101 (Oct.) 1949.*

Dryco®

a versatile base for "Custom" formulation

The Prescription Products Division, The Borden Company
350 Madison Avenue, New York 17, New York

VOLUME 48
NUMBER 1

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 557

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154

Send all communications for publication to the Trenton Office

Each member of the State Society is entitled to receive a copy of THE JOURNAL every month.

VOL. 48, No. 1 JANUARY, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE: THE BOARD OF TRUSTEES

The Board of Trustees is, according to our Constitution, the executive body of our Society. Every organization is faced with the peculiar problem of selecting an executive instrument that will have the efficiency of speedy operation without thereby losing democratic control. A Board of Trustees is a particularly good method for accomplishing these two ends. The Board is small, and the geography of our state makes it possible for a large proportion of the Trustees to attend even hurriedly called meetings. Thus it can function swiftly. And because the Trustees are elected by your representatives in the House of Delegates with an assured geographical balance, it constitutes a democratic body.

When honors are passed out at the Society's public functions, it is customary to pay tribute to the President and other specific officers, whereas the Trustees then seem almost anonymous. It is therefore desirable here and now to call attention to the fact that, in spite of their avoidance of the limelight, the Trustees are actually the ones who deserve major credit for the smooth operation of this Society. They are all busy men. They come to meetings regularly and to special meetings on call and do so at considerable personal sacrifice. They spend long hours in deliberation on matters of importance to the members of the Society. They display a vigorous and well-rounded interest in the diverse affairs of our organization. No officer, no committee chairman can expect to get the Board to approve any ill conceived plan. He can be sure that the members of the Board will examine all recommendations with thoroughness and objectivity.

Sometimes one wonders why a busy doctor is willing to neglect his practice

and make personal sacrifices to attend the frequent and lengthy meetings which that duty imposes on him. The work is hard, it is often thankless and very seldom is any public credit given to the Trustees for this unselfish work. Perhaps their satisfaction comes out of a sense of dedication to the welfare of their colleagues and out of the feeling that with the adjournment of each meeting they can say that here is a job well done.

Aldrich C. Crowe, M.D.

RESPONSIBLE JOURNALISM

Responsible book and newspaper publishers must be constantly on the horns of a dilemma with respect to medical items. On the one hand is the desire not to give the public false hopes by uncritical, optimistic reports on new drugs and procedures. On the other hand is the avid public appetite for such news plus the long tradition of the free press. A charlatan or a crack-pot could write a book on his method of curing cancer, insanity, or any other chronic ailment. If the publisher seeks advice from a medical society he will probably be told to withhold release until the procedure has been tested by standard scientific methods and found to be effective according to sound criteria. The author will urge the publisher to proceed, arguing that physicians are naturally conservative, and perhaps reminding the publisher that Christopher Columbus was once considered a crack-pot too.

It is certainly true that editors should not be required to suppress facts simply because they are unwelcome to a "minority group". But in this case, the minority group is the country's staff of experts on the very matter under discussion. Furthermore, it is a group with a long and proud record of public service. Freedom of the press, like all freedoms, carries within itself a cognate duty. A duty to be accurate and a willingness to assume responsibility.

Book publishing is seldom an emergency project. Because of the time available, and because of their interstate character, book manuscripts for lay consumption could well be cleared by national professional organizations.

Magazine deadlines are somewhat stricter, but here too the editor can usually afford the time needed to obtain expert opinion on any article which, if untrue, would raise false hopes among the sick. Some specialty societies do have committees to advise editors on lay articles. For the most part, however, this is not a well developed practice, and one wonders why the specialty societies do not set up permanent, smooth-functioning machinery of this sort.

The newspaper article presents the most difficult problem in the field. Here each local editor must decide whether to publish the item that comes in on the wire service or is brought to the office by one of his own reporters. He has a right to look to the county medical society for guidance. Sometimes, when he does so, he is told that a committee must pass on the matter. Since he is publishing a daily paper, not a year book, this may not be a very workable plan. Rather than wait for the next committee meeting, he is likely to go ahead and publish the item anyway. It is all very well for the medical society to condemn this as irresponsible journalism. A more constructive approach would be the designation of two or three selected members of the society to pass on such stories immediately. There is, of course, some danger of impulsive judgment under such pressures of time. But compared to the alternative, this would seem like a worth-while risk.

A SHORT HISTORY OF SPECTACLES

Benjamin L. Gordon, M.D., Atlantic City, N. J.

For his knowledge of the external world, man is more indebted to vision than to any of the other senses. Perhaps this was why the ancients were more familiar with optics than with other branches of physics. Yet, in spite of their knowledge of optics, the ancients somehow failed to evolve so simple and practical a device as spectacles. They used the convex lens as a burning glass. It is difficult to understand why, through accident, design or just plain curiosity, some one did not try to apply it to the eye.

The lens, as an instrument for magnifying objects or for concentrating rays to effect combustion, was known at an early period of history. Aristophanes, in his *Clouds* (about 424 B.C.), mentions the use of the burning-glass to destroy the writing on a waxed tablet. Much later, Pliny describes such glasses as "solid balls of rock-crystal" or "hollow glasses". The ancient Greeks certainly knew that light travels in straight lines and that an object is seen in the direction in which it really lies. The antiquity of mirrors indicates an acquaintance with the phenomena of reflection.

A treatise on optics, assigned to Euclid[1] shows that the Greeks were acquainted with the production of images by plane, cylindrical, concave and convex spherical mirrors.

The English archeologist, Sir John Layard, while excavating in Nineveh about a century ago, discovered a plano-convex of rock-crystal among the ruins of the palace of Nimrud. This, of course, implied a knowledge of the burning and/or magnifying power of the crystal.

Certain elementary phenomena of refraction were also noted in deep antiquity. These include the apparent bending of an oar at the point where it meets the water, and the apparent elevation of a coin or other object in a basin when more water is added.

Books on the subject of refraction date back to the beginning of the Christian era. Early in the second century A.D., the great astronomer and physicist, Claudius Ptolemy,[2] wrote a five-book work on "optics" which has come down to us *via* imperfect manuscripts in Paris and Oxford. The fifth book deals with the refraction of luminous rays in their passage through media of different densities, and also with astronomical refractions. Ptolemy discusses the nature of light and color, the formation of images by mirrors and refractions at the surface of glass and of water. He gives tables of the angles of refraction corresponding to given angles of incidence, with rays passing from air to glass and from air to water, as well as such astronomical refractions as the apparent displacement of a heavenly body due to the refraction of light in its passage through the atmosphere.[3] Yet, with all this theoretical knowledge, the ancient Greeks apparently never employed spectacles.

There is no reasonable evidence that either the ancient Egyptians or the Hebrews had any knowledge of spectacles. Some biblical scholars point to the following verse in the book of Psalms: "Mine eye is consumed because of grief.[4]" The commentator Rashi (abbreviation of Rabbi Solomon Yizhaki) interprets the Hebrew word *Oshesho* in the sentence as meaning "looking through a glass before the eyes," thus inferring that (at least in the time of Rashi in the year 1175) spectacles were in use.

The Talmud[5] refers to a magnifying glass *ispeclaria hameira* ("lucid specularum"). "All prophets looked through an *ispeclaria* that did not increase the light, but Moses looked through an *ispeclaria* that increased the light." It is doubtful whether these references could have applied to spectacles. More likely the phrase "magnifying glass" was used here in a metaphorical sense.

1. By Proclus and Marinus.
2. Dampier, W. C.: *History of Science*, page 54. (London, Cambridge University Press, 1943).
3. Sarton considers this work the "most remarkable experimental research in all history". From page 274 of volume 1 of his *Introduction to the History of Science*. (Baltimore, Williams and Wilkins, 1931).
4. Psalms, 6:8.
5. Talmud, *Yoma* 76-B.

Doubt may also be cast on the statement of Pliny[6] to the effect that Nero watched the combat of the gladiators through a convex lens. He used the word *smaragadus* which also applies to certain precious stones. It is uncertain whether Pliny referred to spectacles, to a magnifying glass or something else entirely. Furthermore, according to Pliny himself, Nero was near-sighted and consequently a magnifying glass would have been of no use in aiding him to see from a distance.

The Chinese appear to have been first to have definitely employed spectacles. Marco Polo[7] recorded that when he visited China in 1270 he found the people using lenses to aid their sight. The Chinese, according to many historians, were the only people of antiquity who developed a knowledge of scientific appliances but spectacles like many other Chinese discoveries, never reached Europe.

The Arabs, as the tenth century was approaching, were on the verge of discovering spectacle lenses to aid vision, but somehow they missed it. Abu al Haitam (966-1020), known in the West as Alhazen,[8] perhaps the finest original scholar in Islam and one of the greatest students of optics of all times, showed great advance in his experimental methods relating to sight. His optical studies have been translated into Latin. He was the first to correct the Greek misconception of the nature of vision, by proving conclusively that the rays of light come from external objects *to* the eye, and do not issue *from* the eye and impinge on external things—a concept widely held up to his time. He determined that the retina was the seat of vision, and that impressions made by light upon it are conveyed along the optic nerve to the brain.

No one could come to these conclusions, nor, indeed, know anything about these facts, unless he had engaged in the forbidden practice of dissection. He explained how we see one picture while using both eyes, on the basis of the formation of the visual images on corresponding portions of the two retinas.

Alhazen[8] demonstrated that our sense of sight is an untrustworthy guide, and that optical illusions arise from the course which rays of light take when they undergo refraction or reflection. He knew that the atmosphere decreases in density with an increase in height; and from this he reasoned that a ray of light descending upon the earth enters it obliquely and follows a curvilinear path which is concave toward the earth. He noted that the mind refers the position of an object to the direction in which the ray of light from it enters the eye. He carried this to its logical conclusion, namely, that the result is really an illusion. He demonstrated that in its passage through air the curvature of a ray increases with the increasing density, and that its path does not depend on vapors that chance to be present, but on the variation of density in the medium. Alhazen used spherical mirrors and studied spherical aberrations and the magnifying power of lenses. Yet even he did not hit upon the idea of spectacles.

Roger Bacon, the Doctor Mirabilis of the thirteenth century, was one of the greatest men that England has produced. He is often credited with the invention of spectacles. Bacon, despite the ecclesiastical discipline to which he had to submit, was fearless and outspoken in his principles. He was imprisoned for 14 years. His books were banned by the authorities. Yet he did not deviate from his convictions. He stands out as the first great experimental philosopher, not only of his own time, but for many centuries to follow as well. He wrote *Optical Science* shortly before he was imprisoned. There, he states:[9] "If a man looks at letters or other small objects through the medium of a crystal of glass or of some other transparent body placed above the letters, and it is the smaller part of the sphere whose convexity is toward the eye, and the eye is in the air, he will see the letters much better and they will appear larger to him. . . . Therefore, this instrument is useful to the aged and to those with weak eyes . . . . The wonders of refracted vision are still greater; for it is easily shown by the rules

6. Pliny (Gaius Plinius Secundus). *Historia Naturalis.* Book 37; chapter 5.
7. Sarton, George: *Introduction to the History of Science.* Page 1024 of volume 2. (Baltimore, Williams and Wilkins, 1931.)
8. Kitab al Manzir. *The Optical Thesaurus of Alhazen.* Translated from the Hebrew into Latin by Gerard of Cremona.
9. Bacon, Roger: *Opus Majus.* (Bridge's translation, 2:72). London.

stated above that very large objects can be made to appear very small, and the reverse, and very distant objects will seem very close at hand, and conversely."

With all his great theoretical and experimental knowledge Bacon's discovery of convex lenses to assist vision has not been positively substantiated.

The history of science, and more particularly the history of inventions, constantly confronts us with problems like those presented by such writing as Friar Bacon's. Rarely has it been given to one man to promote an entirely new theory or to devise an entirely original instrument; more generally, in the evolution of a single idea, there comes some stage which arrests our attention, and to which we assign the dignity of the term "invention".

The obscurity that surrounds the history of spectacles, the magic lantern, the telescope and the microscope, may find a partial solution in the spirit of the Middle Ages. The natural philosopher who was bold enough to present to a prince a pair of spectacles or a telescope would be in imminent danger of being regarded by some as a dangerous magician of satanic origin. It is conceivable that the maker of such an instrument would jealously guard the secret of its actual construction, however much he might advertise its potentialities. Particularly the former factor might have applied to Roger Bacon. While others claimed the credit of inventing spectacles he, for reasons noted, might have been afraid to denounce their claims.

Spectacles were first used by the public at the end of the thirteenth century. The Italian dictionary of the *Accademici della Crusca* (1612) mentions a sermon delivered by Jardeno di Rivalto in 1285 (published in 1305) which refers to the invention of spectacles. Part of the sermon reads: "It is hardly twenty years since the art of making spectacles which enables us to see better was invented: One of the most useful in the world, I have myself seen and spoken to the man who first made them". Jardeno di Rivalto[10] refers to the Friar Alessandro della Spina who was at the monastery of Florence with him in the year 1285. In the archives of the monastery of Florence where Spina died in 1313 the following words are recorded: "He (Spina) was a good man of retiring disposition who reproduced anything he saw and which he had heard about. He made spectacles himself which were first made by someone who would not divulge the secret of their manufacture. With kind heart and willing hands he imparted what knowledge he had to his followers." The archives seem to indicate that the date of the invention was the year 1305 and that the person who would not divulge the secret was Salvinus de Armatus of Florence, who came into possession of this secret device through the worthy Spina *via* an indiscreet friend of Roger Bacon's from whom he learned the technic of making spectacles.

William Malyneux,[11] in his *Dioptric Nova,* declared that Bacon understood all kinds of optical glasses and knew the methods of constructing them. He quoted Bacon[11] as saying: "Glasses may be formed that the most remote object may appear just at hand, and the contrary so that we may read the remotest letters at an incredible distance and may number things though ever so small". This indicates that Bacon had very nearly, if not completely, arrived at a theoretical proof of the invention of spectacles, even though his writings give no account of their actual construction.

In 1276 (thirty-one years before spectacles were accepted by the people at large as an aid to vision) the English Friar, Roger Bacon, was probably ready with his invention when he writes, "How useful this glass must be for those who are old and have weak eyes".

In World War II, the slope of the hill on which stood the monastery of Mount Casino, was a bloody field of battle. This monastery played a role in the evolution of spectacles. Roger Bacon was in that monastery for fifteen years. He worked out a way of making glass lenses for magnifying purposes and confided the invention to Heinrich Goethals. Goethals was then commissioned to go to Rome to interview Pope Martin IV. When Goethals landed

10. On the testimony of Jardeno di Rivalto, the discovery occurred some time after 1285. See page 1025, volume 2 of Sarton's work (citation 7 above).

11. Thompson, C. J. S.: *The Origin and Development of Spectacles.* Page 8. Turin, Italy, 1942.

in Florence he heard that the Pope had died and during his sojourn in this city he met a friar named Alessandro della Spina. To him he confided Bacon's device for persons with impaired vision. Spina repeated the secret of the invention to his friend, Salvinus de Armatus. The latter did not lose much time in introducing convex spectacles[12] to the public.

Muschenbroek states that on the tombstone of Salvinus de Armatus, who died in the year 1317, there is an inscription[13] assigning the invention of spectacles to him:

"Here lies Salvinus de Armatus of the Armati of Florence, inventor of spectacles. God pardon him his sins." The last phrase shows how medieval authorities viewed with suspicion inventions designed to aid weakened organs of the body. The doctrine was: "God's work is perfect and cannot be aided by the hands of man". Isaac D' Israeli relates that because fingers were designed for manipulating objects, the use of forks was once denounced by the clergy as an insult to the creator: "When God in his wisdom has provided man with natural forks (fingers) it is impious to substitute metallic artificial forks for them when eating."

In Germany and Flanders, glasses were apparently in use towards the close of the fifteenth century. Francesco Redi writes to Falconieri at Rome in 1676 stating that he had seen an old manuscript dated 1285 in which the writer had stated: "I find myself so oppressed with years that without the glasses known as spectacles I have strength neither to read nor write. These have been lately invented for the convenience of poor old people who are weak sighted." He did not name the inventor, but the famous Italian surgeon, Albertotti, who flourished at the time of Salvinus de Armatus, stated that the latter's claim to the discovery had not been proved.

Bernardus Gordonus (Bernard de Gordon), professor at the University of Montpelier, in his book *Lilium Medicinae* (1305), was the first physician to mention spectacles as "Oculus Berellinus". He credited this invention as well as the invention of the modern form of the truss to Salvinus de Armatus.

Another celebrated surgeon, Guy de Chauliac (1298-1368), professor at the University of Paris, while praising his own eye lotion, also alluded to spectacles. "If this (his lotion) does not relieve you then try eye-glasses." This would imply that the medical profession was not in a hurry to heed the public clamor for spectacles and perhaps entertained grave doubts as to their real value.

The makers and wearers of spectacles were often men of profound learning. Among both were theologians, philosophers, mathematicians, and astronomers. Some of the spectacle makers have already been mentioned. The great mathematician, astronomer and physicist, Isaac Newton (1642-1727), who was also interested in optics, wrote about the subject and constructed spectacles. The astronomer, Galileo Galilei (1564-1642), the inventor of the microscope, Anton van Leeuwenhoek (1632-1723), and the philosopher, Baruch Spinoza (1632-1677), all supported themselves by grinding lenses.

The users of glasses included elderly scholars, theologians and monks, who occupied themselves with copying manuscripts. The wearers of glasses were greatly respected. Spectacles came to be the symbol of scholarship and educational superiority.

In St. Mark's Convent in Florence, there is a miniature of St. Matthew sitting in front of a table with spectacles on the tip of his nose. A similar picture is seen in a fourteenth century manuscript at the Bibliotheque Nationale of Paris. There St. Paul is depicted as wearing spectacles. These illustrations show the respect bestowed upon the wearer of spectacles.

Lydgate, in his *Life of our Ladye* (written about 1430), tells of a festival in connection with the marriage of the daughter of Juta of Austria. Pietro Bonaparte, ambassador to the Austrian court, caused a great sensation by appearing with glasses across his nose. These spectacles were said to have been made by the Florentine Salvinus de Armatus.

12. Concave spectacles were not introduced until two centuries later.

13. According to a letter sent to me by Dr. Andrea Corsini of Florence, there is no such epitaph. However, the Chapel of the Virgin in Santa Maria Maggiore contains a marble head said to represent Salvino with a tablet bearing that inscription. Salvino is not buried in this chapel. See page 1025 of volume 2 of Sarton's work (citation 7 above).

In Spain in 1659 spectacles were already popular. The wearers were supposed to be important and dignified personages who belonged to high society. Spectacles were an emblem of elegance, distinction and superiority.[14]

A single eye glass (monocle) was worn in England and Germany by aristocrats for appearance rather than for utility. Up to the nineteenth century, German aristocrats, eager to assume a regal and scholarly aspect, actually wore frames without glasses. An inferior frame was worn in the presence of a superior. Persons of lesser rank did not possess the temerity to be seen in glasses. I can remember a time when abroad, and to some extent here in the United States (in rural districts) the ordinary man seldom wore glasses in public lest he become a laughing stock. I remember one case in which the nickname "professor" stuck to a bricklayer throughout his life.

Until Donders' time, even in the case of eye sickness, glasses were not fitted by specialists.[15] There were no scientific means of estimating the degree of refractive error or, for that matter, of determining whether the patient was hyperopic, myopic or presbyopic. Only trial and error methods by the patient himself were used. Prior to 1850 or 1860, refraction was not an essential part of the oculist's specialty. Littell[16] states: "Oculists are often consulted about the selection of glasses (the quality of glasses) . . . Properly selected glasses afford greatest aid and comfort . . . without diminishing the sight, though the contrary is vulgarly imagined."

The sale of glasses was in the hands of peddlers, who walked from house to house exhibiting their wares on trays—a sight which older physicians still may recall. After spectacle hucksters were outlawed, eyeglasses were sold on the counters of five and ten cent stores.

Before the middle of the last century there were no trial lenses with which to estimate refraction errors. The first box of trial lenses was made by Mr. A. Nacht, and the first physician to construct such an outfit for his own use was C. F. Arlt[17] in 1843. The early trial cases had no cylindrical lenses to correct astigmatic errors, although cylindrical lenses had been used by Thomas Young[18] as far back as 1793. This gentleman corrected his own astigmatism by grinding himself such lenses. In 1827 the English mathematician and astronomer, Sir J. B. Airy (1801-1892), repeated the same feat for his own personal use.

In 1803, Wallastan introduced the periscopic lens, and finally in 1847 Donders conceived the idea of prismatic lenses. Their usefulness was tested out later by Von Graefe.

Küchler in 1843 and Arlt in 1844 were the first to introduce letters of different size as standards for determining visual acuity. Ten years later Jaeger published his scale of types which received general acceptance. Finally Snellen emerged with his test cards.

The first American contribution to the perfection of spectacles was by Benjamin Franklin, who, in 1794, conceived the idea of splitting two lenses, and fixing them in a single frame—the upper section to be used for distant sight and the lower section for near sight. This invention led to the invisible bifocal lens.

Posey[19] says that Dr. Isaac Hays of Philadelphia was the first ophthalmologist in America (1854) to prescribe cylindrical lenses to correct astigmatism.

The greatest name in the history of scientific refraction is surely Hermann Von Helmholtz (1821 to 1894). In 1851, just a century ago this month, he invented the ophthalmoscope and revolutionized ophthalmology. Now for the first time in all history, man had a window into the human retina. It was, indeed, the first time that a part of the central nervous system could be visualized in the living patient. Of course this completely re-oriented ophthalmology. More than that, it demonstrated a relationship between fundal pathology and systemic diseases.

As a memorial of this year, the centennial

---

14. Thompson; citation 11, above.
15. Donders, F. C.: Archives fur Ophthalmologie, 4:301 (1858).
16. Littell, George: *Manual of Diseases of the Eye.* Page 255. (Philadelphia, Blakiston, 1836).
17. Friedenwald, H.: Archives of Ophthalmology, 11:67 (January 1934).
18. According to Sir Duke Elder, Isaac Newton was the first to consider the question of astigmatism. See Elder's *Practice of Refraction,* page 119, (Philadelphia, Blakiston, 1928). Also see my paper in Archives of Ophthalmology, 15:859 (May 1936)—B.L.G.
19. Posey, W. C.: *The Wills Hospital of Philadelphia.* Page 5. (Philadelphia, Lippincott, 1931).

of the invention of the ophthalmoscope, let us close by presenting the description of the invention in Helmholtz's own words:[20]

"While preparing for a lecture, I first hit upon the possibility of the ophthalmoscope, and then on the plan for measuring the velocity of the impulse in the nerve.

"The ophthalmoscope has become the most popular, perhaps, of my scientific achievements, but luck played an incomparably greater part than my merit in this matter. I had to explain to my students the theory of ocular luminosity, which stemmed from *Brücke.* Actually, *Brücke* had missed the discovery of the ophthalmoscope by a hair's breadth. He had only neglected to ask himself the question: To which optical image do the rays returning from the luminous eye belong? Had he raised this question, he could have answered it just as quickly as I did, and the ophthalmoscope would have been discovered. I was considering the problem from different angles, in order to see how I could present it most simply to my audience, and while so engaged I hit upon the aforementioned question. As a result of my medical studies I was well acquainted with the difficulties confronting ophthalmologists in those conditions which at that time were lumped together under the term 'amaurosis'. I immediately set about to construct the instrument out of spectacle lenses and cover glasses for microscopic preparations. At first it was difficult to use, and without a firm theoretical conviction that it must work, I would not have persevered in my efforts. But after about eight days I had the great pleasure of being the first to see clearly a living human retina."

6917 Atlantic Avenue

CONGENITAL HEART DISEASE*

I. CLINICAL CONSIDERATIONS

Daniel F. Downing, M.D., Nicholas A. Antonius, M.D., Harrold A. Murray, M.D., and William Rumsey, M.D., Newark, N. J.

Proper evaluation of an individual with congenital heart disease often depends upon specialized diagnostic procedures, facilities for which are available in relatively few centers. However, it is important that the physician who *first* sees the patient with a cardiac anomaly be acquainted with certain differential considerations in diagnosis so that only suitable candidates will be referred for definitive studies or surgery. It happens not infrequently that hopes are aroused by the assurance, based on inadequate observation, that surgery is possible. It is doubly tragic when these hopes are dashed by the later discovery that surgery will not help.

Definitive diagnosis may be dependent upon extraordinary measures, but history and physical examination give valuable clues. X-ray and fluoroscopy, available to most physicians, are of paramount importance. In the following paragraphs are outlined those points of greatest aid to the practitioner in arriving at a working diagnosis in some of the more important entities.

ACYANOTIC LESIONS

Interventricular septal defect. In general, the defect may be said to be "high" or "low". The *low* defect is usually of small size and may occur anywhere in the septum ("maladie de Roger") ; the *high* defect is present as a result of failure of the aortic septum to meet the interventricular septum. Symptoms resulting from low defect are lacking because of its small size. If the defect is large (resulting in a substantial shunt of blood from the high pressure left ventricle to the relatively lower pressure right ventricle) signs of right heart failure may ultimately develop. The high defect allows blood to flow from the left ventricle almost directly into the pulmonary artery. If the defect is large the amount of shunted blood may be considerable, resulting in dilatation of the pulmonary artery and secondary pulmonary vessels. Changes in the lung take place and cyanosis and clubbing may develop in time. As a rule, however, interventricular septal defects do *not* give rise to symptoms. On physical examination the most striking finding is a systolic murmur, harsh and grating, best heard

*From the Sections on Cardiology, Pediatrics and Thoracic Surgery, St. Michael's Hospital, Newark, N. J., and the Division of Pediatrics and the Department of Thoracic Surgery, Hahnemann Medical College, Philadelphia, Pa.

20. Helmholtz, Hermann: Errinnerungen in Vortrage und Reden, volume 1. Braunschweig (1896).

in the third and fourth left interspace near the sternal border and transmitted over the left chest. A thrill may or may not be present. Because of increased blood flow through the defect the murmur may be louder after exercise. In general, the louder and harsher the murmur, the smaller the defect.

The electrocardiogram offers no diagnostic aid. X-ray and fluoroscopy are usually of negative value, the heart appearing normal. If the defect is high the pulmonary artery may be dilated and there may be marked pulsations in the secondary pulmonary vessels.

Interauricular septal defects. These are considered apart from a patent foramen ovale, which is usually not significant. A true auricular septal defect allows free communication between the right and left auricles. The history is of significance in cases where there was cyanosis for a short time after birth, disappearing as the infant developed. This is because right heart pressure in the early days of life may allow a right-to-left shunt which ceases when the normal left heart preponderance of pressure develops. Frequent pulmonary infections are also of significance. There is usually a systolic murmur, its intensity depending upon the size of the defect. It cannot be differentiated from the murmer of an interventricular septal defect. Because of the shunt of blood from the left auricle to the easily distensible right auricle, the latter dilates. The right ventricle then enlarges because of the increased load on the pulmonary circuit. As a result, in early life prominence of the left thorax develops. Arrhythmias are frequent in this condition. Cyanosis develops during periods of increased physical stress when the right auricular pressure transiently becomes greater than that of the left. The electrocardiogram is of some aid. There may be evidence of auricular dysfunction and slight right axis deviation. X-ray and fluoroscopy show the right auricle to be dilated, the right ventricle to be enlarged and the pulmonary conus to be dilated. It is commonly held that if the pulmonary artery is greatly dilated, one is enabled to differentiate between the Lutenbacher syndrome (auricular septal defect with associated mitral stenosis) and other defects of the auricular septum. This is not always true for we have seen proved pure auricular septal defects with enormous dilatation of the pulmonary artery.

Patent ductus arteriosus. In fetal life there is little, if any, circulation of blood through the lungs. Blood passes from the right ventricle out the pulmonary artery and thence through the ductus arteriosus to the aorta. At birth the course changes: the pulmonary bed accepts the output of the right ventricle and the ductus arteriosus closes. If the ductus fails to close there continues to be movement of blood through it, but now the direction is reversed. Because of the higher pressure in the aorta, the flow is *from* the aorta *to* the pulmonary artery. Characteristic murmurs develop. Early, there may be only a systolic murmur. When the systemic diastolic pressure rises above the pulmonary diastolic pressure a diastolic murmur also appears. These murmurs are best heard in the second left interspace near the sternum and sound like a continuously running machine. Only the very rare defect between the pulmonary artery and aorta near their origin from the heart gives a similar finding. Other conditions which, on cursory examination, may give rise to continuous murmurs in this area are usually easily differentiated if care is used. A thrill is, as a rule, palpable in the same location as the murmurs. Both are maximal in the recumbent position. The pulse pressure is wide. The electrocardiogram is usually essentially normal. X-ray and fluoroscopy may be productive of normal findings. Characteristically there is increased prominence of the pulmonary artery and increased pulsations of the pulmonary vessels.

Coarctation of the aorta. The primary pathology in coarctation of the aorta is a narrowing of the vessel in the portion just distal to the origin of the left subclavian artery. Blood entering the aorta from the left ventricle is allowed to flow freely to the head and arms but its course to the rest of the body meets with opposition at the site of constriction. As a result, there is absolute or relative hypertension in the upper extremities, hypotension in the lower. Often the patient gives a history of headache and throbbing of the head, cold-

ness and numbness of the lower extremities. Usually there are no symptoms until late in life. The difference in the blood pressure in the upper and lower extremities is the most striking physical finding. In addition, there is absence of pulsations in the legs. A murmur, systolic in time, is frequently audible over the apex or at the aortic region. Other murmurs are often heard at various points over the thorax. These are due to the passage of blood through dilated collateral channels. Because of the extra work load on the left ventricle, the electrocardiogram usually shows a left axis deviation. X-ray examination shows prominence of the ascending aorta and diminution of the shadow of the descending aorta. The pulsating collateral vessels characteristically cause erosion of the lower margin of the ribs which can be clearly seen on the roentgenogram.

CYANOTIC LESIONS

Tetralogy of Fallot. There are two primary defects in this condition: overriding of the aorta and pulmonary stenosis. The two associated, or consequent, abnormalities are an interventricular septal defect and hypertrophy of the right ventricle. The history is usually one of cyanosis appearing at birth or shortly thereafter and decreased exercise tolerance. Cyanosis is the most striking physical finding. In older patients, it is accompanied by clubbing of the fingers and toes. A systolic murmur of greatest intensity in the third left interspace along the sternal border is usually present and is often accompanied by a thrill. The electrocardiogram shows a right axis deviation. On x-ray and fluoroscopy the heart is found to be of normal size or smaller than normal. Because of the hypertrophy of the right ventricle the apex is elevated. The pulmonary stenosis usually causes the pulmonary conus and artery segments to be diminutive so that there is concavity of the left cardiac border. The shadow of the great vessels is narrowed due to the fact that the aorta arises farther to the right than normally. Finally, the peripheral pulmonary vessels are diminutive. In many cases these classical findings are not present and the diagnosis is obscure.

Tricuspid atresia. The right ventricle may be entirely absent or it may exist only as a rudimentary chamber. The condition is compatible with life only if there are compensatory means of allowing blood flow to the lungs. Cyanosis is the most prominent physical finding and according to the history, it has been present since birth. There is decreased exercise tolerance. A murmur, if present, is due to an associated malformation, such as a patent ductus arteriosus or a septal defect. The electrocardiogram is most important in diagnosis in that it shows, in most cases, a left axis deviation. This is, for all practical purposes, the only cyanotic lesion in which there is a left axis deviation although there are exceptions. The fluoroscopic examination shows the left cardiac border to be concave and there may be absence of the heart shadow to the right of the vertebral column. Because of the absence of the right ventricle, the cardiac shadow in the left anterior oblique position does not approach the sternum as closely as normal. The left ventricle is enlarged and the shadow of the great vessels is narrowed.

Transposition of the great vessels. The pulmonary artery arises from the left ventricle, the aorta from the right. An accessory malformation is necessary so that there will be crossing of the two circulations. This may be a patent ductus arteriosus, a patent foramen ovale, an interventricular or interauricular septal defect or a combination of these. Cyanosis is variable in its time of appearance. If there are no compensatory anomalies, cyanosis appears at the time of birth and is intense. The patient dies almost immediately. If there are compensatory abnormalities cyanosis may not appear until later, but then it becomes progressively more intense. If there *is* a patent ductus arteriosus the cyanosis of the legs will be less intense than that of the upper extremities, head and trunk. This is because oxygenated blood is pumped from the left ventricle through the ductus arteriosus to the descending aorta. Dyspnea and diminished exercise tolerance are invariable. The character of the murmur depends on the associated anomaly. The electrocardiogram shows a right axis deviation. The fluoroscopic findings will depend

to some extent on the associated abnormalities. In general, however, the heart is found to be enlarged both to right and left. There is a concavity at the region of the pulmonary conus. Because the aorta arises from the right ventricle its shadow will approach the anterior chest wall when seen in the oblique view. The great vessel shadow is narrowed. If the foramen ovale is open the size of the right ventricle may vary rhythmically as pressure is built up on one side and then is dissipated as it becomes greater than that on the other.

Truncus arteriosus. A single great vessel arises from the heart and performs the function of aorta and pulmonary artery, receiving blood from both the right and the left ventricles. The right and left main branches of the pulmonary artery may be atretic. If so, circulation to the lungs must take place *via* the bronchial arteries. Cyanosis depends upon how much blood gets to the lungs. If the pulmonary branches are of normal size, there is a large volume of blood being oxygenated and cyanosis, (which will be due only to complete admixture of arterial and venous blood) will be minimal. If pulmonary circulation is by way of the bronchial arteries only, a small amount of blood will be aerated and cyanosis will be intense. Dyspnea and clubbing occur in relation to degree of cyanosis. A harsh systolic murmur at the base of the heart is present, accompanied by a thrill. The electrocardiogram is of no positive diagnostic aid. The heart is enlarged to fluoroscopic examination. The left border is concave at its upper reach due to absence of the pulmonary conus. The aortic shadow is widened. In the left anterior oblique position the shadow of the right ventricle and that of the aorta are almost at a right angle and the ventricle forms an extensive shelf toward the anterior chest wall.

ANATOMIC DIAGNOSIS

Certain diagnosis of many of the above lesions is impossible with the aid of the criteria given. They will, however, enable one to narrow down the possibilities. It then becomes necessary to seek aid in arriving at the anatomic diagnosis. In general, this entails cardiac catheterization or thoracic aortography for the acyanotic cases, angiocardiography for the cyanotic lesions. The time at which these further procedures are carried out is important. Again to generalize, acyanotic lesions need not be definitely diagnosed during early infancy. On the other hand, it is often of greatest importance that the nature of cyanotic lesions be determined as early as possible. Many infants who, possibly, might be aided by surgery die because the operability of their lesions is not realized until post-mortem examination; or because the most suitable operation is not carried out. They develop fairly well for a time and the parents and physician are buoyed by the hope that they can be carried along until they arrive at the age at which cardiac surgery is usually thought feasible. There suddenly arrives the time when the infant begins a downhill course. His condition worsens in the course of hours. It is now impossible to carry out the diagnostic procedures. The surgeon may courageously operate in the face of his ignorance as to the exact nature of the condition. Often it is a matter of chance whether or not his approach is the correct one; if it is not, the opportunity has been lost. On the other hand, while the decision to operate is being made the infant's condition may deteriorate to the point that intervention is no longer possible. Had the exact anatomic diagnosis been made when the infant was still in good condition, there would need be no hesitation as to the possibility of operation or the best approach.

SUMMARY

The definitive diagnosis of congenital cardiac anomalies depends upon the use of certain specialized procedures. However, an exclusion diagnosis may be arrived at if certain criteria are kept in mind.

Mention is made of these criteria in regard to a number of important entities.

The importance of early anatomic diagnosis of cyanotic congenital cardiac anomalies is stressed.

306 High Street, Newark
230 No. Broad Street, Philadelphia

DIURESIS IN CONGESTIVE HEART FAILURE*

Carroll M. Leevy, M.D., and Thomas J. White, M.D., Jersey City, N. J.

Recent studies[1] in cardiac physiology have emphasized the need for different therapeutic approaches in low output and high output heart failure. Diuresis, however, continues to play an important role in both varieties. In heart failure incident to anemia, thyrotoxicosis, arteriovenous fistulas, beriberi, Paget's disease and emphysema (high output failure), the primary objective is reduction in body demand for an increase in cardiac output by appropriate therapy. Cardiac failure due to anatomic damage (low output failure) requires improvement of myocardial reserve and strength with rest and cardiac drugs. Surgery is essential where constrictive pericarditis interferes with heart function.

Diuresis is important in *all* congestive heart failure because of the renal dysfunction which is associated with this state. Radioactive sodium clearance studies show impaired clearance of this ion in congestive failure,[2] and chemical analyses of edema fluid indicate that sodium retention is responsible for the congestion.[3] Observed decrease of glomerular filtration and renal blood flow with resulting renal vasoconstriction[4] has led to the thesis a decrease in renal blood supply causes this sodium retention. However, renal venous congestion,[5] and excess antidiuretic hormones from pituitary, adrenal and hepatic abnormalities,[6] have been postulated as primary or contributory factors.

Sodium retention in the form of chloride and bicarbonate is associated with body water increase, principally in the extracellular compartment. This expansion, at first limited to the interstitial spaces, is associated with electrolyte imbalance of the cells and leads to an increment in plasma fluid volume, and the classical signs and symptoms of congestive heart failure. Diuretic therapy should correct abnormal retention of water and electrolytes without inducing further imbalance.

Rest, digitalis and venesection indirectly influence diuresis by improving cardiac function. Some digitalis preparations and venesection may exert a further effect by action on the venomotor apparatus to decrease renal venous congestion.[7] Morphine sulfate may be deleterious because of its antidiuretic effect. The brunt of diuretic therapy rests with modification of fluid and electrolyte intake and excretion.

WATER

The average patient with congestive heart failure should be allowed to drink sodium-free water as it is desired, consuming enough to maintain a daily minimum urinary output.[8] Water intake should be increased to prevent dehydration where there is intrinsically impaired renal function, sepsis, excessive skin or urinary water loss. Water ingestion is related to habit. Our studies indicate that the average spontaneous intake by cardiacs is approximately 1700 cubic centimeters during the summer, 1300 during the winter, and 2200 in febrile states.

In the Jersey City Medical Center restricted fluids led to discomfort in 28 per cent of the patients with associated evidence of dehydration in many. With more extreme degrees of fluid restriction accompanied by intensive mercurial diuresis, disorientation, and intravascular clotting developed. Fluid restriction is indicated only in the presence of the anuria or oliguria incident to peripheral vascular collapse or acute renal insufficiency.[9]

Forcing fluids caused discomfort in 18 per cent of our patients. In our experience, no deleterious effect resulted from forcing fluids experimentally or where indicated, with sepsis, azotemia or dehydration. Injudicious forcing of fluids, however, may lead to salt depletion syndromes.[10] Forcing fluids frequently facilitates diuresis, particularly if urine formation was previously low. However, if prior urine

* From the Department of Medicine, Jersey City Medical Center. Presented by invitation at the Clinical Conference of The Medical Society of New Jersey, Jersey City, N. J., November 2, 1949.

volume exceeds two to three liters per day, little is achieved with attempts to increase diuretic potential with increased water intakes. Indeed, further forcing of fluids may decrease the total excretion of sodium as a reflection of normal protective mechanisms of the body.[11]

Diuretic capabilities of plain water seem to be related to the salt-water intake. When this ratio is greater than 15 to 20 mE, salt is retained; with a decrease there is a renal leakage of salt in excess to intake. Using the formula:[12]

$$\frac{\text{Daily Salt Intake in mE} - 20\ \text{mE}}{\text{Water Intake in liters}} = 4.7\ \text{mE/Liters}$$

which would insure diuresis, it has been shown a two Gram salt intake would require three liters of plain water to maintain diuresis. A salt intake of 4 to 6 Grams would require fluid intake of ten to fifteen liters. See Table 1. On the other hand, with the spontaneous fluid intakes most patients ingest, the salt intake must be limited to 1.5 Grams of salt. In areas where the sodium content of the drinking water is high its consumption must be curtailed.[18]

DIET

Numerous dietetic schemes are advocated for patients with congestive heart failure. Patients acutely decompensated should ingest as little salt as possible until cardiac compensation is restored. For the comfort of the patient it would be ideal to exercise few dietary restrictions. To correct the abnormality of sodium retention it is desirable to permit only that amount of sodium which is excreted without the influence of diuretics. The therapist must be aware of the tolerance of a given low sodium diet and its effect on morale, body electrolyte economy and general metabolic needs.

Requisites for an ideal low sodium diet include: sufficiently low sodium, adequate calories, protein, minerals and vitamins; and good tolerance. The currently used diets are 500 milligrams sodium acid ash, 500 milligrams of sodium general (basic ash), 200 milligrams of sodium, rice and fruit, milk and water (Tables 2 to 5). Dietitians can construct a diet to contain any amount of sodium from the low value of 35 milligrams contained in a rice and fruit diet to the 500 milligrams contained in other popular diets.

Construction of a low sodium diet should be based upon an attempt to provide the basic constituents of a normal diet, namely fruit, vegetables, bread, meat, butter, eggs and milk. General knowledge of the sodium content of these foods permits modification of a previous normal diet pattern, to suit the needs of the cardiac patient. Thus most fruits contain 2 to 3 milligrams of sodium per serving, low salt vegetables contain from 3 to 5 milligrams of sodium per serving, salt free bread contains 5 to 6 milligrams of sodium per slice, meat contains approximately 50 to 100 milligrams of sodium per slice, an average egg contains 40 milligrams of sodium, unsalted butter contains half a milligram of sodium per pat, and milk contains 120 milligrams of sodium per glass. (Table 6) Fruits and vegetables are alkaline ash except for prunes, plums and cranberries. Meat, milk, egg, bread and cereal are acid ash.[18] Sodium contents vary in different localities and depend on the type of soil, salt content of water supplies and methods of cooking. Specific sodium contents are available in numerous tables which should be consulted by both physician and patient.

With acute heart failure where full diets are poorly tolerated maximum sodium restriction compatible with comfort should be practiced. However, in long term management of heart failure it is essential to provide a diet to care for the full needs of the patient. The 500 milligram sodium diets are adequate, providing in its simplest form 1700 calories, 83 Grams of protein, one Gram of calcium, 16 milligrams of iron, 8000 units of Vitamin A, 1.3 milligrams of thiamine, 1.8 of riboflavin and 108 of ascorbic acid in the acid ash form. The 200 milligram sodium diet we employ is inadequate in calcium and riboflavin. The rice and fruit and milk and water diets as used are inadequate in protein, vitamins and iron. Thus, each of these diets (except the 500 milligram sodium diet) must be adjusted to make up for deficiencies. Certain low sodium supplements such as dialyzed milk, peanuts, et cetera, may be used to construct an adequate diet but this is inconvenient and has been poorly tolerated on large scale.

Tolerance is determined by previous habits and racial and geographic backgrounds. A study[13] of diet tolerance in 900 cardiac patients, revealed the 500 milligram acid ash diet

was best tolerated. The 500 milligram alkaline ash diet was second best tolerated, the rice and fruit diet was third best tolerated and the milk and water diet was tolerated poorest. Intolerance was attributed to dyspnea, anorexia, and dislike for dietary constituents. During the acute phases of heart failure with dyspnea and anorexia, the milk and water or other liquid regimens were best tolerated, anorexia causing intolerance in 93 and dyspnea in 96. Without these symptoms, diet dislike, reaction to the dietary constituents and hunger were responsible for intolerance in 149 patients. These studies suggest that if as much as 400 milligrams of sodium is to be allowed the cardiac, with acute illness associated with dyspnea and anorexia, the milk and water diet should be used. In absence of this complication, the 500 milligram acid ash diet should be prescribed. Salt substitutes increase dietary tolerance in selected patients. Of 43 outpatients studied on Neocurtasal† for long periods, 24 (56 per cent) believed that this substance improved their tolerance. Nineteen (that is, 44 per cent) reported no improvement. Improved diet adherence has been achieved by giving patients periodic instruction on sodium values and having them keep food diaries.

DIURETICS

Despite the efficacy of water and low sodium diets in diuresis, exogenous diuretics are frequently necessary in congestive heart failure. Mercurials are the most potent available diuretics. They increase sodium output 75 fold. Experiments suggest their action depends on metabolic replacement of sulfahydryl groups in the enzyme system of the renal tubules so that normal water and sodium chloride reabsorption does not occur. The reported side-effects of mercury include: ventricular fibrillation, anaphylaxis, stomatitis, mercurial nephrosis, dehydration, peripheral vascular collapse, asthma, urticaria, fever and substernal oppression, salt depletion, low calcium tetany, prostatic swelling.[14]

Ascorbic acid has been added to potentiate the diuretic effect of mercurials and decrease its toxicity. An attempt has been made to limit toxicity to permit oral use of diuretics, but the incidence of gastro-intestinal reactions precludes its widespread use. We have used oral preparations in some patients with good results but we rely on systemic preparations. Recently the addition of sodium mercapto-acetate** to salyrgan has significantly decreased the toxicity to permit subcutaneous administration of a mercurial. This substance** has been used in more than 3000 instances in our cardiac clinic without local or systemic reaction. Intelligent patients have been taught to administer their own diuretic, thereby saving much professional time. The disadvantage of the present available preparation is the necessity for refrigeration for long term preservation. Edematous or indurated skin should not be used for the injection.

Intramuscular Mercuhydrin‡ has been associated with slight pain (depending on the type of needle used) but without ill effect in 17,000 injections administered to 228 clinic patients by our Public Health Nursing Service. A group of 64 patients have been maintained continuously over a 4 year period on this drug.

We have limited intravenous mercurials to patients acutely ill with waterlogging which prevents adequate absorption of the injected material.

Many schemes have been proposed for administering mercurials. In the Medical Center an attempt has been made to avoid routine administration. No effort is made to secure "dry weight". This, we feel, is an unphysiologic state. No pattern is pursued in developing maintenance mercurials. In the 64 patients receiving ambulatory mercurial therapy for four years attempt has been made to eliminate symptomic and obvious fluid excesses with periodic addition of mercurials. History, physical examination, weight and urinary output following the mercurials have governed its administration.

Ammonium chloride and a host of acidifying diuretics have been used by cardiologists. The

† Furnished by the Winthrop Chemical Company.

** Under the trade name of Thiomerin, manufactured by Campbell Products, Inc., New York.

‡ Mercuhydrin is the trade mark for a brand of mercury propyl succinyl urea manufactured by Lakeside Laboratories of Milwaukee.

rationale of ammonium chloride is based upon the splitting off of the "ammonium" ion in the liver for conjugation and formation of urea serving as a mass diuretic, and the leaving of the chloride ion to attract sodium ions from the tissue for excretion. We have prescribed 6 to 8 Grams daily for three consecutive days on and off to prevent replacement of the tissue sodium by ammonium produced by the kidney thereby nullifying diuresis. Nausea and vomiting result from ammonium chloride where the enteric coated preparation is not used. Acidosis and dehydration are rarely seen if it is used in proper quantities. Many debate the desirability or value of ammonium chloride. It is efficacious in potentiating mercurials and all of our ambulatory patients receive it. Cation exchange resins are still being investigated in diuretic therapy and it is hoped will be modified for practical use in the future.

LIMITATIONS

The limitations of the diuretic regimen should be recognized. Patients with acute heart failure associated with pulmonary edema should have oxygen, morphine and correction of plasma volume abnormalities as the primary therapy. Diuresis is of secondary importance. Pulmonary edema due to central nervous system disease, infection, gas intoxication, et cetera (which constitute 70 per cent of clinically seen edema of the lungs) are contra-indications to a diuretic regimen unless there is independent fluid accumulation.[15]

Dependent edema due to venous obstruction, phlebothrombosis, thrombophlebitis or lymphangitis should bar the diuretic regimen as the primary therapy though it may be justified in individual instances. The diuretic regimen should be discontinued with patients who do not respond to it, until an adequate evaluation reveals reasons for refractoriness. In spite of the major attacks to secure diuresis, patients may fail to have any effect or subsequently will become refractory to diuresis.

REFRACTORINESS TO DIURESIS

Temporary refractoriness to the diuretic regimen is frequently noted. This has been attributed to a low glomerular filtration rate and is correctable in some instances by the increase of filtration secured by the administration of aminophylline.[16] In many instances simply withholding diuretics will permit restoration of the diuretic potential presumably by correcting electrolyte imbalances or permitting increments of glomerular filtration. A study of thirty patients with maintained refractoriness to diuresis on an ambulatory and inpatient basis revealed that in ten of them, there developed cardiac incompetence with ensuing renal dysfunction of a degree impossible to correct. This is a ratio of 33 per cent. Primary renal abnormalities occurred in six—an incidence of 20 per cent. Infections (subacute bacterial endocarditis or exacerbations or rheumatic fever) occurred in 8 (or 27 per cent). Liver disease was a complication in six—also 20 per cent. These patients developed hypo-albuminemia or portal obstruction. Refractoriness to diuresis in most ambulatory patients has been attributable to failure to adhere to their diet. Many hospital patients have had poor diuresis because of diet cheating.

COMPLICATIONS OF DIURESIS

The major complications of the diuretic regimen are those incident to water and electrolyte disturbances.

Dehydration is often seen where water intake is restricted. It is best recognized by dryness and inelasticity of the skin and mucous membrane. Many edematous patients may exhibit evidence of dehydration which must be treated while instituting diuresis. Therapy consists of an increased water intake.

Sodium depletion is most often seen in hot weather or with injudicious administration of diuretics as previous studies[10a] from our clinic emphasize and is prone to occur where heart failure is associated with renal insufficiency, pulmonary disease and adrenal insufficiency. Recognition depends on suspecting its existence in heart failure associated with refractoriness to mercurials, oliguria, weakness and gastro-intestinal upsets. Confirmation with blood sodium determinations is essential. With acute symptoms, the hyponatremia should be corrected with infusion of 3 per cent sodium chloride.

Chloride deficiency is often seen in the im-

mediate period of diuresis as expressed by muscle cramps. Urine and blood chlorides are helpful in this diagnosis when ammonium chloride has not been given. Sodium, ammonium or potassium chloride may be used in corrective therapy.

Negative nitrogen, calcium or vitamin balances may result from prolonged use of nutritionally inadequate low sodium diets. Diuresis promotes blood coagulability so that thromboembolic phenomena constitute a major source of concern and often anticoagulants are indicated prophylactically.[17]

SUMMARY AND CONCLUSIONS

1. Effective diuretic therapy in heart failure is based on insuring an adequate water consumption, maintaining a low sodium intake and judiciously administering mercurial and acidifying diuretics.

2. Water should be consumed as it is desired if a daily minimum urinary output is maintained. Forcing or restricting fluids lead to discomfort and are not indicated in routine management of congestive heart failure.

3. A diet with adequate calories, protein, vitamins and minerals with a low sodium intake is indicated. The degree of sodium restriction should be determined by the severity of the heart failure and diet tolerance. Nutritionally inadequate diets should only be used for short periods.

4. Mercurial diuretics should be employed as required to maintain the patient edema free. Sixty-four patients receiving weekly mercurials on an ambulatory basis over a four-year period have been kept symptom free without observed ill effects. Trials of subcutaneous mercurials have provided increased comfort with equal diuretic effect.

5. The limitations of the diuretic regimen in heart failure associated with pulmonary edema, thrombophlebitis and lymphangitis should be recognized. Patients with maintained refractoriness should be evaluated for severe cardiac disability, renal insufficiency, hepatic abnormalities and inflammatory states after the more common factor of nonadherence to the diuretic regimen has been eliminated.

6. The cardiac is susceptible to dehydration, sodium depletion, chloride deficiencies, negative nitrogen and vitamin balances. The clinician should individualize therapy to avoid these states and constantly watch for evidence of such imbalances.

TABLE 1
THEORETICAL SALT: WATER INTAKES NEEDED TO MAINTAIN DIURESIS *

Salt Intake Grams	Fluid Intake Cubic Centimeters
1.4	800
1.5	1,200
1.6	1,800
1.9	2,500
2.0	3,000
4.0	10,200
6.0	15,300

TABLE 2
500 MILLIGRAM SODIUM DIET

1 All foods are prepared and served without salt or sodium compounds.
2. Selection of food is limited by the normal sodium content of foods.
3 Diets are formulated to be acid ash or alkaline ash as desired.

Basic Constituents:

Milk	1 pint whole milk, *no more*
Meat	1 serving
One other protein	1 serving
Egg	1
Fruit	1 citrus, 1 other fruit
Vegetable	2 servings
Potato	1 serving
Cereal	2 servings
Bread, w.w., unsalted	4 slices
Butter, unsalted	4 servings
Sugar	ad lib
Dessert	1 serving prunes, cranberries or fresh plums OR 1 salt free pudding, made with part of milk allowance if ash balance is maintained.

TYPE MENU

Breakfast	*Dinner*	*Supper*
Citrus fruit	Meat or 1 egg	Meat or fish
Cereal, SF	Potato, SF	Rice, SF
Egg, 1	Vegetable, SF	Vegetable, SF
Bread, SF, 1	Bread, SF, 2	Bread, SF
Sweet butter	Sweet butter	Sweet butter
Coffee	Pudding, SF	Fruit
Sugar	Coffee or tea	Tea or coffee
Milk, ¾ cup *only*	Sugar	Sugar
		Milk, ¾ cup *only*

* Computed from Formula by Gorham *et al.*12

TABLE 3

200 MILLIGRAM SODIUM DIET

1. All foods are prepared and served without salt or sodium compounds.
2. Selection of food is limited by the normal sodium content.
3. Diets are formulated to be acid ash or alkaline ash as desired.

Basic Constituents:

Milk	None
Light cream	¼ cup *only*
Meat	2 servings
Egg	1 *only*
Fruit	1 citrus, 2 others
Vegetable	2 servings
Potato	1 serving
Cereal	1 serving
Bread, w.w., unsalted	4 slices (may substitute one cereal for 1 slice bread)
Butter, unsalted	4 teaspoons
Sugar	ad lib

TYPE MENU

Breakfast	*Dinner*	*Supper*
Citrus fruit	Meat, SF	Lean meat, SF
Cereal, SF	Potato, SF	Vegetable, SF
¼ cup cream *only*	Vegetable, SF	Fruit
Egg, 1	Bread, SF 1	Bread, SF, 2
Bread, SF, 1	Sweet butter	Sweet butter
Sweet butter	Fruit	Tea or coffee
Coffee	Tea or coffee	Sugar
Sugar	Sugar	

TABLE 4

RICE AND FRUIT DIET

1 The rice is cooked and served without salt. Any kind of rice may be used except rice cereals. Brown rice is best. The rice may be steamed or boiled in water or fruit juice without salt, milk or fat.
2. Do not use canned or dried fruit to which substances other than sugar have been added.
3. Tea or coffee without milk is permitted.

Basic Constituents:

Rice	1½ cups dry measure
Fruit	6 portions (800 Grams)
Fruit juice	5 glasses (one liter)
Sugar	ad lib

TYPE MENU

Breakfast	*Dinner*	*Supper*
Fruit, 2	Rice, sugar	Rice, sugar
Rice, sugar	Fruit, 2	Fruit, 2
Fruit juice	Fruit juice	Fruit juice

Additional fruit juice at 3 p. m. and at 8 p. m.

TABLE 5

MILK AND WATER DIET

Basic Constituents:

Milk	4 glasses each day
Water	ad lib

TABLE 6

GENERAL SODIUM CONTENT OF BASIC DIETARY CONSTITUENTS[18]

	Milligrams
Fruit, 1 serving (100 Grams)	2
Vegetables, 1 serving (100 Grams)	5
Salt Free Bread, 1 slice	5.5
Meat, 1 serving (100 Grams)	75
Egg (each)	40
Milk, 1 glass (240 cubic centimeters)	120
Butter, unsalted 1 pat (10 Grams)	0.5

Medical Center

1. a. Richards, D. W., Jr.: Am. Jr. Med., 3:34 (1947).
b. Starr, Isaac: Annals of Int. Medicine, 30:1 (January 1949).
c. Dock, William: Journal of the American Medical Association, 140:1135 (August 6, 1949).
2. a. Burch, George, Reaser, Paul, and Cronvich, James: Journal of Laboratory and Clinical Medicine, 32:1169 (October 1947).
b. Burch, George, Reaser, Paul: New Orleans M. & S. Journal, 99:124 (1946).
3. Stead, E. A., Jr., and Marren, J. V.: J. Clin. Investigation, 23:283 (March 1944).
4. a. Merill, A. J.: Investigation, 25:389 (1946).
b. Mokotoff, R., Ross, G., and Leiter, L.: J. Clin. Investigation, 27:1 (1948).
5. a. McMichael, John: The American Journal of Medicine, 6:651 (May 1949).
b. Maxwell, M. H., Breed, E. S., Schwartz, I. L.: Journal of Clin. Inves., 29:342 (March 1950).
6. a. Pick, Ernest P.: Journal of Mt. Sinai Hospital, 13:167 (November, December 1946).
b. Leaf, Alexander and Conter, William T.: Journal of Clin. Inves., 28:1067 (September 1949).
7. a. McMichael, J., and Sharpey-Schafer, E. P.: Quarterly Journal of Medicine, 13:123 (1944).
b. Harvey, A. M., Ferrer, M. I., Cathcast, A. T., Richards, D. W., and Cournand, A.: Am. Journal of Medicine, 7:439 (October 1949).
8. Leevy, Carroll M., Strazza, John A., Jaffin, Abraham E.: Journal of the American Medical Association, 131:1120 (August 3, 1946).
9. Muirhead, E. E., Venatta, J., and Grollman, Arthur: Archives of Int. Med., 83:528 (May 1948).
10a. Ben-Asher, S.: Ann. Int. Medicine, 25:711 (1946).
10b. Schroeder, Henry A.: Journal of the American Medical Association, 141:117 (September 10, 1949).
11. Crutchfield, A. J., and Wood, E. J.: Ann. Int. Med., 28:28 (January 1948).
12. Gorham, L. W., Lester, D. E., Wolf, A. V., and Shultz, H. H.: Annals of Internal Medicine, 27:575 (October 1947).
13. Houghton, James, and Leevy, Carroll M.: Diet Tolerance in Congestive Heart Failure, Unpublished.
14. a. DeGraff, Arthur C., and Nedler, J. E.: Journal of the American Medical Association, 119:1006 (1942).
b. Wexler, J., and Ellis, L. B.: American Heart Journal, 27:86 (1944).
c. Waife, S. O., and Pratt, P. T.: Archives of Int. Med., 74:42 (July 1946).
d. Chapman, D. W., and Shaffer, C. F.: Arch. Int. Med., 449:456 (April 1947).
15. Leevy, Carroll M., and Auerbach, Herman: Bulletin of the Jersey City Medical Center (December 1949).
16. Weston, R. E., and Escher, D. J.: Journal of Clinical Investigation, 27:561 (1948).
17. Harvey, P. W., and Finch, C. L.: New England Journal of Medicine, 242:208 (February 9, 1950).
18. Bills, Charles *et al.*: Journal of the American Dietetic Association, 25:304 (April 1949).

PAINLESS ACUTE MYOCARDIAL INFARCTION

REPORT OF A CASE WITH EARLY ELECTROCARDIOGRAPHIC CHANGES*

Meyer Notkin, M.D., Paterson, N. J.

Ever since 1912 when Herrick[1] first described the symptoms of acute coronary thrombosis in this country, many aspects of this clinical entity have been studied. Pain was the commonest chief complaint reported by those afflicted with this acute condition. As time went on, the evaluation of more and more cases showed that clinicians were encountering acute coronary thrombosis without any complaints of pain by the patient. The literature of this phase of the subject during the past two decades has been voluminous.

Most authors believe that cardiac pain is the result of changes brought about in the myocardium following anoxia. If this is true, then it is possible to understand how obstruction to one of the coronary vessels can occur without pain. Blumgart *et al*[2,3] have shown that when a coronary occlusion occurs slowly with the gradual development of a collateral circulation, no signs or symptoms will be produced, and it is possible that no myocardial lesion will be exhibited. This explanation may apply for the older patient, who as the years have gone by, has slowly developed the ordinary sclerotic changes of the arterial system. But in recent years we have all been confronted with the problem of acute myocardial infarction in the third and fourth decades of life. These subjects do not show sclerotic changes in their arterial system. Here the sudden anoxia of the heart muscle has not allowed for development of the collateral circulation. Yet even some of these patients do *not* complain of pain. Libman[4] in 1919 attempted to explain this by saying that some of these patients might be "hyposensitive" and thus able to withstand certain amounts of pain and not complain about it. Another explanation has been postulated by Levy[5] who suggests that perhaps the symptoms which some experience, such as choking, gaging or dyspnea, might be "pain equivalents".

Much clinical and experimental material has gradually found its way into the literature, leading to a better understanding of this disease. Pain as a symptom of acute myocardial infarction is of special importance. By a careful evaluation of its site, severity, radiation, and relationship to other factors (such as exertion, food and emotion) one can be led to the correct diagnosis. The lack of pain has therefore made the diagnosis more difficult.

Parkinson[6] and Wolferth[7] have stated that acute myocardial infarction without pain is rare. On the other hand, many writers, especially in recent years, have shown that painless, acute infarction is not so uncommon. Stroud and Wagner[8] reviewed a hundred cases of proved myocardial infarction and found that 15 of the patients had no pain. Pollard and Harvill[9] studied a larger series and reported that 4.5 per cent were without any complaints of pain. Chambers[10] in studying a hundred consecutive cases, stated that 21 did not mention pain as part of the chief complaint. Mintz and Katz[11] analyzed a group of 572 cases. Eighteen or 3.2 per cent had no pain and five of these eighteen died, a mortality rate of 28 per cent in the group with painless infarction. Baer and Frankel[12] presented a large series, in whom 10 per cent did not have pain. Although the ratio of painless cases varies a great deal, one

* From the St. Joseph Hospital, Paterson, N. J.

1. Herrick, J. B.: Journal of the American Medical Association, 59:2015 (June 1912).
2. Blumgart, H. L., Schlesinger, M. J., and Davis, D.: American Heart Journal, 19:1 (January 1940).
3. Blumgart, H. L., Schlesinger, M. J., and Zoll, P. M.: Journal of the American Medical Association, 116:91 (February 1941).
4. Libman, Emanuel: Transactions of the American Association of Physicians, 34:138 (June 1919).
5. Levy, R. L.: *Diagnosis and Treatment of Cardiovascular Disorders.* F. A. Davis Company, Philadelphia (1940).
6. Parkinson, J., and Bedford, D.: Lancet, 1:4 (January 1928).
7. Wolferth, C.C.: Journal of the American Medical Association, 109:1769 (December 1937).
8. Stroud, W. D., and Wagner, J. A.: Pennsylvania Medical Journal, 45:590 (June 1942).
9. Pollard, H. M., and Harvill, T. H.: American Journal of the Medical Sciences, 199:628 (July 1940).
10. Chambers, W. N.: New England Journal of Medicine, 235:347 (March 1946).
11. Mintz, S. S., and Katz, L. N.: Archives of Internal Medicine, 80:205 (August 1947).
12. Baer, S., and Frankel, H.: Annals of Internal Medicine, 20:108 (August 1944).

must conclude that the phenomenon is not uncommon.

An abnormal electrocardiogram following an acute episode of myocardial infarction has been obtained as early as 60 minutes after an attack.[13] The doctrine that changes do not occur until several days after the onset is, therefore, fallacious. It has been largely discarded since the development of the multiple precordial and unipolar limb leads. Wood and Wolferth[14] experimentally showed that electrocardiographic changes will take place in fifteen seconds after clamping a large coronary artery in the dog. The use of the electrocardiograph machine in large industries has enabled the clinician quickly to evaluate suspected cardiovascular emergencies. In one large plant[15] during a five year period, 31 employees reported to the plant dispensary with symptoms resembling acute coronary occlusion. In all of these cases a tracing was taken and interpreted within fifteen minutes after onset of symptoms. Positive evidence of acute coronary occlusion was obtained in 16 of the 31 cases, a ratio in excess of 50 per cent. In the case presented here, unusual changes occurred within one hour after the onset of the symptoms. The tracing showed evidence of an acute coronary insufficiency as well as the definite evidence of an acute posterior wall infarction.

Infarction of the myocardium may also be produced by an acute coronary insufficiency in the absence of coronary occlusion. Levy and Bruenn[16] have shown that in sudden death due to disease of the coronary arteries, an occlusion is often *not* found at autopsy. Master *et al.*[17] aptly described the pathologic differences and electrocardiographic differentiation between an acute insufficiency and occlusion, even though the symptomatology may be similar. Following an occlusion, there usually results a large confluent area of infarction extending through from the endocardium to the pericardium. Following an attack of insufficiency, the infarction usually consists of small disseminated foci of myomalacia. It is chiefly subendocardial, involving especially the papillary muscles and interventricular septum. The electrocardiographer finds a depression of the RT segment with T wave changes in the insufficiency cases in contradistinction to the elevation of the RT segment with its reciprocal depression as seen in coronary occlusion.

A 45 year old physician, while working in the operating room was suddenly overcome with a severe weakness that forced him to sit down and ask for a drink of water. In a few minutes he realized that he was unable to continue with his work and went into the next room, trying to relax on the table. He had always had a bradycardia and premature ventricular contractions. While in college he had been examined a number of times since he wanted to play football. He received permission to do so from the college medical authorities. Since then he has always participated actively in sports, playing handball and tennis, and at the same time working hard in his surgical practice. The last electrocardiogram taken prior to the present illness is illustrated in figure 1. The bradycardia and premature ventricular contractions are present, but there is no evidence of any coronary artery disease.

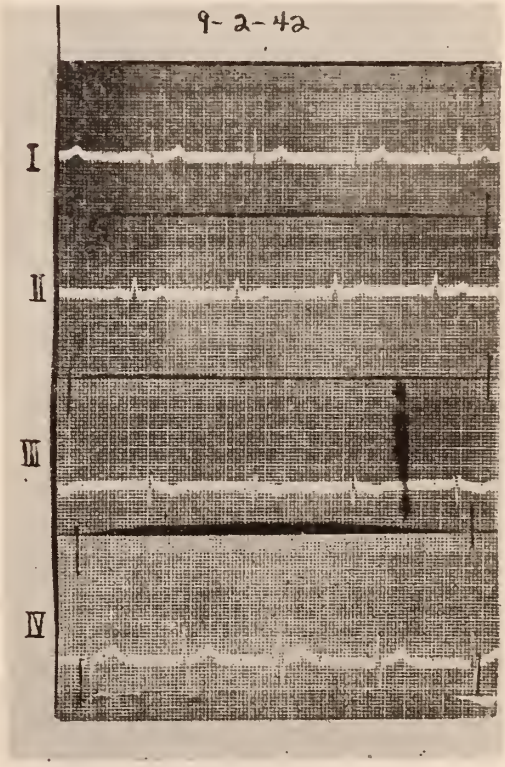


Figure 1. The electrocardiogram taken in 1942. Other than the slow rate, it is normal.

13. Baer, S., and Frankel, H.: Archives of Internal Medicine, 73:286 (February 1944).
14. Wood, F. C., and Wolferth, C. C.: Archives of Internal Medicine, 47:339 (March 1931).
15. Yaeger, C. F.: Connecticut Medical Journal, 9:349 (March 1945).
16. Levy, R. L., and Bruenn, H. G.: Journal of the American Medical Association, 106:1080 (May 1936).
17. Master, A. M., Gubner, R., Dack, S., and Jaffee, H. L.: Archives of Internal Medicine, 67:647 (June 1941).

When the patient was first seen (about 25 to 30 minutes after onset) he was cold and clammy with beads of perspiration over his entire face. The face was very pale. He was conscious at all times, but definitely in shock. The systolic blood pressure stayed at about 80, but at times was unobtainable. The bradycardia persisted at a rate of 44 with occasional premature contractions. At no time did he have any pain, pressure feeling, or choking sensations in his chest. He had no dyspnea. He talked readily with several professional colleagues in the room. After the blood pressure cuff was first removed from his left arm, he did complain of a "peculiar numbness" involving the area about the size of a fifty-cent piece on the medial side of his left arm just above the elbow. But at no time did he complain of any pain or pressure sensation in his chest. The numbness lasted only a short time.

The electrocardiogram taken within an hour after onset of his illness is illustrated in figure 2. He remained in the hospital, as a patient, for 27 days and then convalesced very well at home.

The first post-onset electrocardiogram taken (figure 2) was most interesting and unusual. The characteristic changes found in acute insufficiency and acute occlusion have been well described and differentiated in the past. Here is a tracing that shows the typical Q2 -Q3 pattern of an acute posterior wall infarction that follows an acute oc-

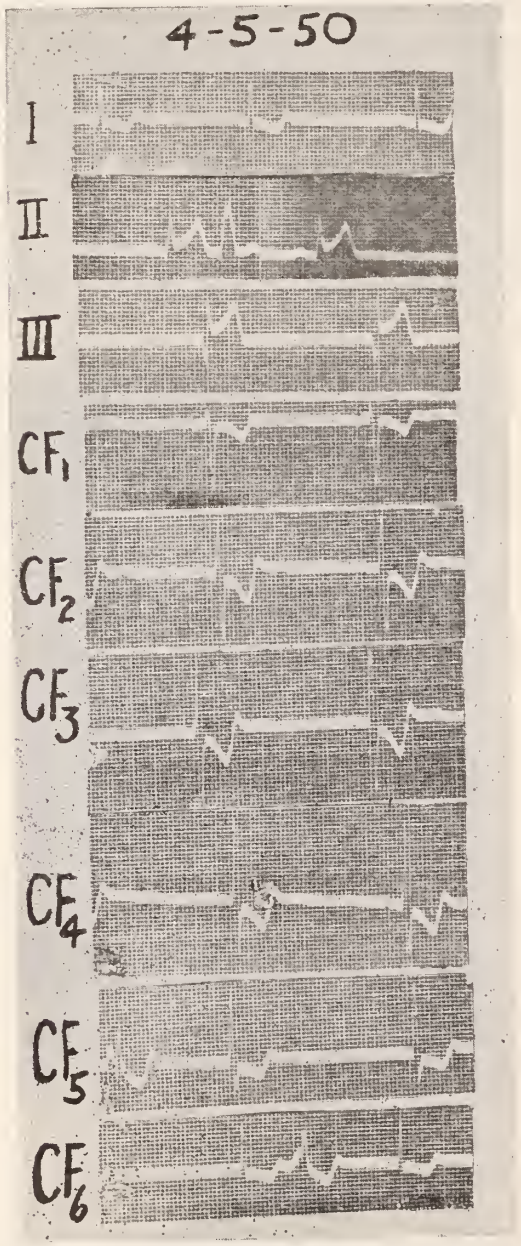


Figure 2. The electrocardiogram taken within the hour after the onset of the symptoms showing the deep Q2-Q3 pattern of acute posterior wall infarction, and the depressed RT segments in lead 1 and the CF leads which indicates acute coronary insufficiency.

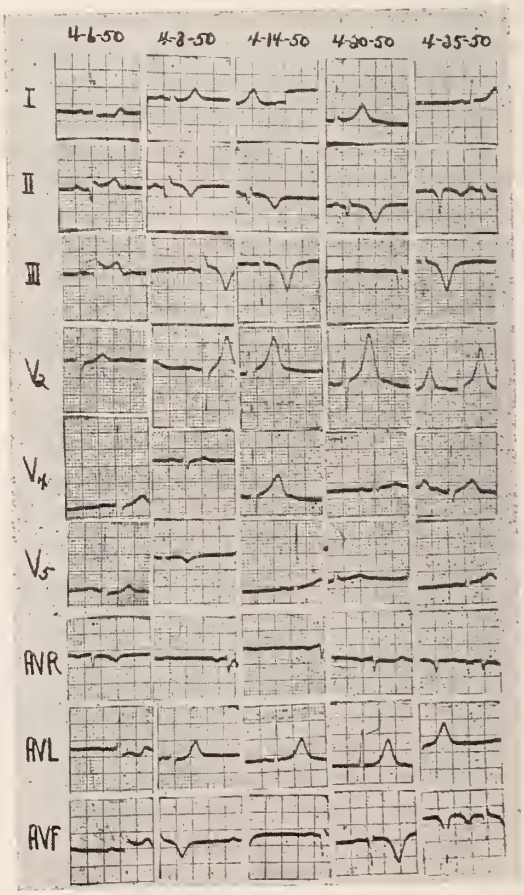


Figure 3. Serial changes of acute posterior wall infarction. The one on 4-6-50 was taken about 18 hours after the onset of symptoms showing the disappearance of the depressed RT segments of acute coronary insufficiency, and in its place now shows the reciprocal depression of the RT segment in lead 1, the usual finding of acute posterior wall infarction.

clusion, and at the same time shows depressed RT segments with diphasic T waves in lead 1 and all the CF leads that is characteristic of acute insufficiency. This unusual finding can be explained on the assumption that, the acute infarction produced a state of shock which, in turn, produced the acute coronary insufficiency, hence the interesting finding of acute occlusion and insufficiency in the same tracing within an hour after the onset of symptoms, but never any complaints of chest pain.

On the next day, the electrocardiogram (figure 3) showed the typical serial changes of an acute posterior wall infarction with the Q2 and Q3 being deeper. Now that the shock had passed over and the coronary circulation had improved, the depressed RT segments of acute insufficiency have disappeared. In its place in lead 1 there is now reciprocal depression of the RT segment which is the usual finding in an acute occlusion. The other tracings in figure 3 show the serial changes as they occurred as time went on. The usual fever, increased sedimentation rate and leukocytosis of an acute myocardial infarction also were found.

SUMMARY

1. A brief review of the literature reveals that painless acute myocardial infarction is not uncommon even though the ratios reported by different authors vary greatly. Explanations for painless infarction are presented.

2. The pathologic and electrocardiographic differences between acute coronary insufficiency and acute occlusion are discussed.

3. Unusual electrocardiographic illustrations are presented in which evidence of acute occlusion and acute insufficiency were found in the same tracing one hour after onset of symptoms.

559 Broadway

COURSE IN OPERATING ROOM RESUSCITATION

A unique, practical, down-to-earth course in the resuscitation of patients who die (or who appear to have died) on the operating table is being offered by the Cleveland, (Ohio) Heart Society. The course runs for three days, and will be given each month as follows:

January 25, 26 and 27.
February 15, 16 and 17.
March 15, 16 and 17.

For further information or for registration, write to the Cleveland Heart Society, 613 Public Square Building, Cleveland 13, Ohio.

COOPERATION WITH TEMPORARY DISABILITY PLAN

Relations between the medical profession and the stage agency administering cash sickness benefits have, in general, been very good. In a few cases, however, physicians have not replied to requests from the Temporary Disability office or have sent in their replies at so late a date that payments to the patients have been held up. One of major difficulty is that some doctors are unwilling to estimate the length of disability and use such words as "indefinite" or "not yet determined" on the forms. It is imperative that doctors make a preliminary estimate of the length of disability since the mechanics of administering the program hinge in some measure on this. There need be no fear of underestimating the duration of disability because the prognosis can always be amended or revised.

Dr. Paul Reisinger, Chairman of your Society's advisory committee for this plan, has asked that all physicians keep this in mind and cooperate with the state by replying promptly to all communications and by making provisional diagnoses and prognoses with the understanding that these are subject to revision.

OFFICE AVAILABLE IN MONMOUTH COUNTY

Because the occupant has been called into military service, a desirable professional office is available in Asbury Park in the Medical Arts Building. This office covers 400 square feet of space. Physicians interested in this possibility are advised to communicate with Dr. Robert F. Lamb, Medical Arts Building, Asbury Park, N. J.

BRONCHOSCOPY IN ALLERGIC DISEASES OF THE CHEST

THOMAS H. McGLADE, M.D., Camden, N. J.

Bronchoscopy is still not a routine procedure in the treatment of chronic bronchial asthma although its use in this condition is becoming more common. Lukens,[1] predicted in 1925 that certain types of "bronchial asthma" would eventually be treated by bronchoscopic methods as a regular procedure. This has not come about probably because the excellent results that may be obtained are not generally appreciated and because it is difficult to know in advance when aspiration will be most useful. An attempt is here made to differentiate the groups of cases in which bronchoscopy is likely to be helpful in diagnosis and treatment.

Cooke[2] divides bronchial asthma into non-infective and infective asthma. He states that 15 to 20 per cent exemplify both types. With the exception of status asthmaticus, which will be discussed later, bronchoscopy is of value only in the infective type. This had formerly been called "intrinsic" or "bacterial" asthma. Non-infective asthma is caused by inhalants, foods, drugs and therapeutic sera. It may best be controlled by the elimination of the offending substances and desensitization therapy. Good results are usually obtained. However, in infective asthma, the results are not nearly so encouraging and it is here that bronchoscopy should be considered.

Twenty-five cases of allergic disease of the chest were studied as to the bronchoscopic findings and the therapeutic results obtained. The cases were divided into four groups: (A) Those with persistent, unproductive cough; (B) Chronic asthma and emphysema; (C) Asthma with secondary infection and (D) Severe asthma including status asthmaticus.

1. Lukens, Robert: Laryngoscope, 35:227 (March 1925).
2. Cooke, Robert A.: *Allergy in Theory and Practice*. Saunders, Philadelphia (1947).
3. Clerf, Louis H.: Journal of the American Medical Association, 136:733 (1948); *also* Annals of Internal Medicine, 9:1050 (1936); *also* Journal of the American Medical Association, 89:872 (1927).
4. Van Loon, Emily L.: Annals of Otology, Rhinology and Laryngology, 45:881 (1936); *and* American Journal of Diseases of Children, 63:217 (1942).
5. Crump, J.: American Journal of Diseases of Children, 58:768 (1939).
6. Davison, F. W.: Annals of Otology, Rhinology and Laryngology, 57:884 (1948).

PERSISTENT UNPRODUCTIVE COUGH

Obviously, not all patients with persistent unproductive cough have allergic disease of the chest. However, when suppurative disease of the lung, pulmonary neoplasm and bronchial foreign bodies are excluded, a large proportion of the remaining patients with this type of cough have some degree of allergy. Cough is an early symptom of asthma and may appear long before any wheeze. Not infrequently, the exciting factor is an acute respiratory infection. Roentgenologic examination of the patient is, in most instances, negative. Frequently, a diagnosis has not been established and asthma not even considered. Physical examination is extremely helpful and a bilateral expiratory wheeze can usually be detected. Thirty-six per cent of the cases fell into this group. The following case is illustrative:

Case 1. A female, aged 29, had complained of a persistent, dry, hacking cough of three years' duration. The cough was largely unproductive. Roentgenologic examinations of chest and sinuses were negative. There was no elevation in temperature. Blood studies did not suggest infection. A mild expiratory wheeze was apparent on physical examination. At bronchoscopy, very little secretion was present. But following the procedure, her cough was greatly relieved. An autogenous vaccine was prepared from the aspirated specimen.

The bronchoscopic findings are not specific. Most commonly, the mucosa is pale. There is some expiratory collapse of the posterior bronchial wall. The secretion is mucoid, extremely tenacious and scant in amount. These findings (along with the mild expiratory wheeze and negative x-ray examination) are sufficient to establish a diagnosis of allergic disease of the chest. It is amazing how frequently the persistent cough is relieved by aspiration even though little secretion has been removed. Having established the diagnosis, other therapeutic measures may be instituted.

Clerf,[3] Van Loon,[4] Crump[5] and Davison[6] have emphasized the value of autogenous vaccines. Davison[6] particularly recommends that they be administered in small dosage. Since

low grade infection so frequently complicates asthma, the use of vaccines appears to be logical.

CHRONIC ASTHMA AND EMPHYSEMA

Bronchoscopy is extremely beneficial in chronic asthma and emphysema. Most patients in this group are elderly males. The predominant symptoms are dyspnea and cough with little expectoration. The symptoms may have persisted for years. Breath sounds are poorly heard with little or no wheeze audible. The percussion note is hyper-resonant or tympanitic. Roentgenologic study shows overdistention of the lungs, a small cardiac silhouette and flattening of the diaphragm (fig. 1).

Figure 1

Roentgenogram Demonstrating Chronic Asthma and Emphysema; Bronchoscopy is Helpful in this Type of Case.

The cough sounds moist but is extremely inefficient. At times, the rattle of secretions can be felt over the trachea and main bronchi. The patient has often resigned himself to the impossibility of clearing his air passages by coughing. Because of this lack of protection, an acute respiratory infection may be hazardous.

Case 2. A 78-year old male had frequent hospital admissions for asthma. He was admitted with asthma and urinary difficulty due to prostatic hypertrophy. Prostatectomy was desirable but considered inadvisable because of his constant cough and shortness of breath. On January 23, 1950, a bronchoscopy was done and a large quantity of clear mucoid secretion was aspirated from the tracheobronchial tree. He was much improved following aspiration. His prostate was then removed and he made an uneventful recovery.

Aspiration is the only satisfactory treatment. In the absence of infection, moderately large quantities of thick mucoid secretion are present in the trachea and main bronchi. The mucosa is pale. Because of the chest rigidity, little or no collapse of the posterior tracheobronchial walls occurs. Removal of secretion relieves the dyspnea, oxygenation is improved and the cough diminishes.

Repeated aspirations are frequently necessary and the time interval varies with the individual. The patient must be kept under observation to decide the optimum time for aspiration.

ASTHMA WITH SECONDARY INFECTION

Asthma is often initiated by infection. If chronic asthma is present, infection is the most important aggravating factor. Infection is determined by an elevation of temperature and a change in the character of the secretions from mucoid to mucopurulent. The infection can be well controlled by sulfonamids or antibiotics if they are given in adequate doses for a sufficiently long time. If the infection is not recognized and active measures are not instituted, secondary pneumonitis is likely.

Case 3. A man, aged 61, was admitted because of a fractured pelvis. He had been caught under a falling brick wall. Asthma had existed for several years and he was under the care of an allergist. No operative procedure was done for the fracture. During his hospital stay, he complained of shortness of breath and had a persistent elevation in temperature. X-ray disclosed atelectasis of the right lower lobe. Bronchoscopy was done and 10 cubic centimeters of thick mucopurulent secretion were aspirated. Following this, the dyspnea improved and his temperature returned to normal. X-ray examination of his chest, a few days later, showed that the collapsed lobe had entirely re-expanded (fig. 2).

In this group of cases, bronchoscopy is a

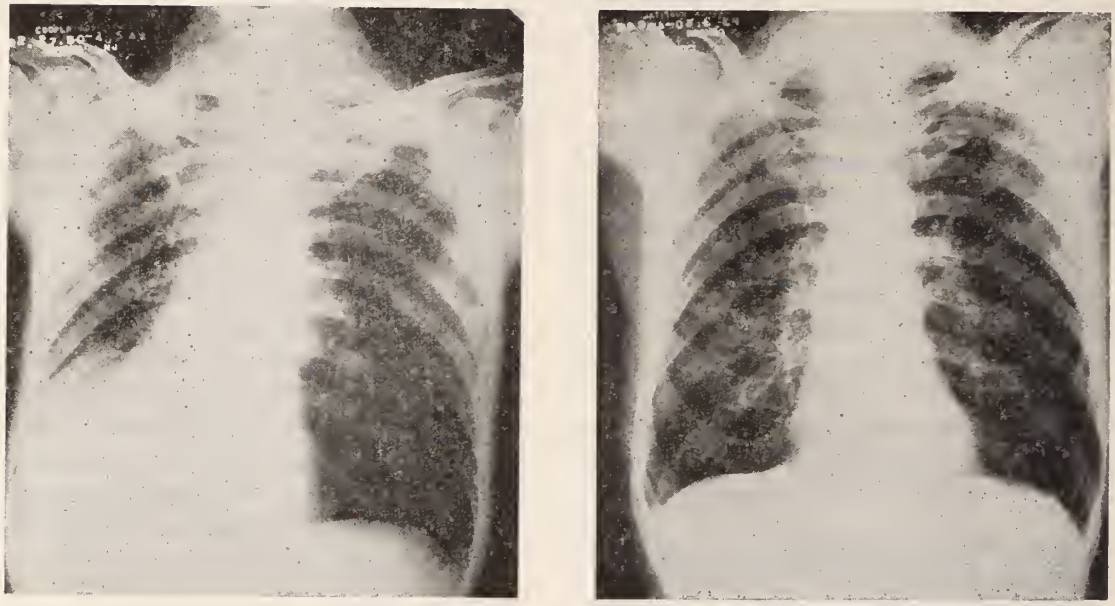


Figure 2

Roentgenogram of the Patient in Case 3: (a) Shows Right Lower Lobe Atelectasis. (b) Re-expansion Which Followed Bronchoscopy.

great aid. Because of difficulty in expectoration, drainage of the lung is impeded and toxicity results. If the condition is ignored (or goes unrecognized) chronic changes in the bronchi, such as bronchiectasis, will eventually result.

Davison[6] believes that excessive mucosal edema, so characteristic of allergic subjects, is the chief factor causing atelectasis which leads to bronchiectasis. Among his patients who had bronchiectasis, 76 per cent showed evidence of allergy.

Case 4. A female, aged 35 years, had complained of a persistent cough and difficult breathing since childhood. A diagnosis of bronchial asthma was made. She had a bilateral expiratory wheeze. Allergic rhinitis and sinusitis were also present. She received various forms of treatment but obtained the greatest relief from periodic bronchoscopies. In March, 1949, she developed a persistent hemoptysis and bronchography was done. This disclosed an advanced degree of bronchiectasis in the left lower lobe (fig. 3). Six weeks later, left lower lobectomy was performed with considerable improvement. However, because of her allergic disease, there still remains some degree of cough and wheeze.

7. Bases, Leonard, and Kurtin, Abner: Archives of Otolaryngology, 36:79 (1942).

SEVERE ASTHMA

Status asthmaticus occurs most frequently in the non-infective type of asthma and commonly accompanies an acute respiratory infection. There is no age preference. The persistent dyspnea threatens life itself. Aspiration of tracheobronchial secretions can bring about dramatic relief. Bronchoscopy is usually considered as a last resort because of the critical condition of the patient. Bases and Kurtin[7] have demonstrated its value.

Case 5. A 36-year old female was admitted with intractable asthma. The attack followed an injection of dust. She was given epinephrin, aminophylline, ephedrine, ether inhalations and oxygen therapy without improvement. At bronchoscopy, little secretion was present. But aspiration succeeded in breaking the cycle. Following bronchoscopy she improved rapidly. She was sent home three days following aspiration.

Observation of the tracheobronchial tree in status asthmaticus shows the mucosa to be red and thickened. There is extreme collapse of the posterior tracheobronchial walls. The secretion is mucoid or mucopurulent, tenacious and abundant.

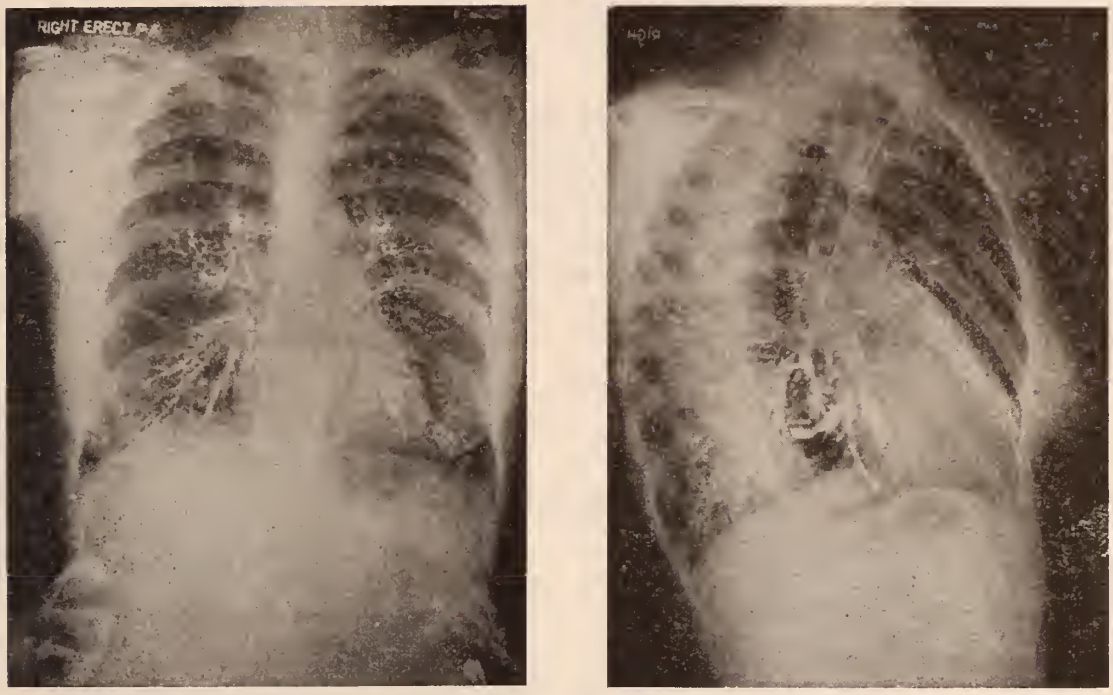


Figure 3
Bronchogram Showing Bronchiectasis Which Developed in a Patient With Chronic Asthma and Secondary Infection (Case 4).

GENERAL RESULTS

The effectiveness of bronchoscopy may be summarized as follows.

Cases	*Group*	*Helped by bronchoscopy*	*Ratio*
9	Persistent, unproductive cough	8	89%
5	Chronic asthma and emphysema	4	80%
5	With secondary infection	4	80%
6	Status asthmaticus	5	84%
25	All cases	21	84%

Of the four patients who were not benefitted by bronchoscopy, two had myocardial weakness, one had a severe emphysema and the other suffered from hypertensive cardiovascular disease.

TECHNIC

Anesthesia for bronchoscopy is in a period of evolution and various methods are still being used. Factors in the choice of anesthesia are, in order: safety, comfort to the patient, satisfactoriness for the operator. While many bronchoscopists find general anesthesia quite satisfactory, the margin of safety is generally greater with local anesthesia. If premedication is well planned, satisfactory analgesia should be obtained. Pentobarbital is valuable because of its sedative action and also because of its antidotic effect to local anesthetic reaction. Morphine sulfate is not advisable in allergic individuals because of its depressant action on the accessory muscles of respiration. Allergists, in general, dislike the use of opiates.

Choice of a local anesthetic rests largely between cocaine hydrochloride and pontocaine[8] hydrochloride. Carabelli[9] uses a 0.25 per cent solution of pontocaine[8] and limits the quantity to 20 milligrams (8 cubic centimeters).

Because of the greater likelihood of reactions in allergic individuals, particular attention must be paid to the anesthetic agent. Clerf[3] has stated that the drug of choice in allergic subjects is cocaine, one per cent, that the drug of choice in non-allergic patients is one per cent pontocaine.[8] He also feels that fractionation is important in obtaining satisfactory anesthesia with safety.

In this series, one per cent cocaine was used

8. *Pontocaine* is the registered trade name for the Winthrop Chemical Company's brand of tetracaine.
9. Carabelli, A. A.: Diseases of the Chest, 15:107 (1949); *and* Diseases of the Chest, 15:532 (1949).

exclusively. The solution was instilled into the larynx with a cannula guided by a laryngeal mirror. No adverse reactions occurred.

The bronchoscope may be introduced by exposing the larynx with the direct laryngoscope or by directly introducing the bronchoscope into the larynx and trachea without the use of the laryngoscope. The latter procedure appears to cause less distress. Extreme gentleness is essential and aspiration must be done carefully to avoid trauma to the bronchial mucosa.

SUMMARY

1. It is difficult for the asthmatic patient adequately to drain his tracheobronchial tree spontaneously because of the tenacious character of the secretion and the tendency to prolapse of the posterior wall.

2. Bronchoscopic aspiration is of definite help in the infective type of asthma. Four groups of cases, totaling 25 patients, have been described. All but four of these patients were definitely benefitted by bronchoscopy.

719 Cooper Street

MATERNAL WELFARE REPORT

A 34 year old para iii, gravida iv. Uneventful prenatal course. Four hour labor. Low forceps delivery. Second degree lacerations of perineum with repair. Gas-oxygen anesthesia. Placenta expressed without difficulty. Patient given pitocin 1 c.c. after delivery of placenta. Uterus contracted down well. Patient returned to ward in apparently good condition. Two hours postpartum, nurse reported bleeding more than usual. Physician was notified. He ordered epinephrine 1 c.c. One-half hour later nurse reported bleeding was continuing, patient was in poor condition. One-half hour later physician arrived. Patient's pulse was very rapid. She was pale, perspiring and condition was poor. Patient was given epinephrine and digitalis and an intravenous of glucose and saline. She expired 45 minutes later.

Cause of death: Postpartum hemorrhage.

Question: Why was epinephrine given?

Answer: There was no indication for giving epinephrine or digitalis. The patient was suffering from shock due to blood loss. The primary treatment for shock from blood loss is restoration of the circulating fluid volume, preferably by blood transfusion. The next phase of the treatment, which may proceed simultaneously with the first, is to identify the cause of the bleeding and take the necessary measures to check it.

Question: When did the patient's bleeding start?

Answer: The nurse reported increased bleeding two hours after delivery. Whenever it was determined, the patient should have been seen by a physician immediately. The cause of the bleeding should have been determined at that time and measures taken to check it. The commonest cause is atony of the uterus. If this were the diagnosis, manual stimulation of the uterus could have been done and one of the intravenous preparations of ergot could have been administered. At the same time plasma could have been started while blood was being cross-matched for transfusion.

Question: What if ergotrate and manual stimulation of the uterus do not check the bleeding?

Answer: The patient should have been taken to the operating room while the blood transfusion was in progress and a consultant called. The perineum, vagina and cervix should be examined for evidence of bleeding from laceration. Inversion of the uterus is of course another possibility, but should have been ruled out earlier by finding the well rounded fundus palpable in the abdomen. If a laceration is found, it should be repaired at once. If there is no laceration and the blood is found to be coming from the uterine cavity, then the interior of the uterus should be explored manually. A retained fragment of placenta may account for such bleeding. Removal of the placental fragment is usually sufficient to check the bleeding. If no placental fragments are found then the uterine cavity must be explored for possibility of laceration. A laceration or tear of the uterine wall usually necessitates a hysterectomy.

Remember: Hemorrhage is the largest single cause of maternal mortalities in our state. This is tragic, for we now have all the aids necessary for the successful treatment of obstetrical hemorrhage. Our greatest problem is early diagnosis and prompt treatment.

Eternal vigilance is the price of safety.

JOHN D. PREECE, M.D., Chairman,
Maternal Welfare Committee.

STATE ACTIVITIES

ADVANCE ANNOUNCEMENT

of the

185th ANNUAL MEETING

HADDON HALL, ATLANTIC CITY, N. J.

MONDAY, TUESDAY AND WEDNESDAY, MAY 14, 15 and 16, 1951

HOTEL RESERVATIONS

Haddon Hall Reservation Desk will accept your room reservation now. Forward your request at once indicating the type of room desired, American or European Plan, your expected arrival and departure dates, and name of the person with whom you will share your room.

Single Rooms with Bath (Haddon Hall) $7, $8, $10; (Chalfonte) $6, $7, $9.

Double Rooms (twin beds) with Bath (Haddon Hall) $10, $12, without ocean view; (Chalfonte) $8, $10.

Double Rooms (twin beds) with Bath (Haddon Hall) $14; (Chalfonte) $12, side ocean view.

Double Rooms (twin beds) with Bath (Haddon Hall) $16, $18, ocean front; (Chalfonte) $14, $16.

For American Plan (meals) add $6 per day per person.

Each additional person in double room $3 European Plan or $9 American Plan.

Deduct $2.00 from the double rate for single occupancy of any double room.

Please arrange to double up when possible—single rooms are limited.

Your reservation will be acknowledged by the Hotel.

SCIENTIFIC PROGRAM

Monday Morning, May 14, 1951

MEDICINE

(Presented by Sections on Dermatology and Gastro-Enterology and Proctology)

9:30 a. m.

Industrial and Occupational Dermatosis (illustrated)

Bart M. James, M.D., Dermatologist, City Hospital, Newark

Co-Author and Discussor: Jacob Bleiberg, M.D., Dermatologist, St. Michael's Hospital, Newark

10:00 a. m.

General Principles in Diagnosis and Treatment of Chronic Dermatitis

Donald M. Pillsbury, M.D., Professor of Dermatology, University of Pennsylvania School of Medicine, Philadelphia

10:30 a. m. - 12:30 p. m.

Symposium on Gastro-Intestinal Malignancies

Moderator: Frank S. Forte, M.D., Chief of Proctology, St. Michael's Hospital, Newark

Diagnosis of Malignancies of the Esophagus and Stomach

J. Edward Berk, M.D., Assistant Professor of Medicine, Temple University School of Medicine, Philadelphia

Diagnosis of Malignancies of the Intestinal Tract

Linn J. Boyd, M.D., Professor of Medicine, New York Medical College, Flower and Fifth Avenue Hospitals, New York City

Surgical Aspects of Malignancies of the Gastro-Intestinal Tract

Earl J. Halligan, M.D., Chief of Surgery, St. Francis Hospital, Jersey City

X-ray Diagnosis of Malignancies of the Gastro-Intestinal Tract

Francis P. Carrigan, M.D., Roentgenologist, St. Michael's Hospital, Newark

SURGERY

(Presented by Sections on Radiology and General Surgery)

10:00 a. m.

Renal Rickets

William H. Seward, M.D., Attending Radiologist, Orange Memorial Hospital, Orange

Discussor: John R. Gilmour, M.D., Assistant Attending Pediatrician, Orange Memorial Hospital, Orange

10:30 a. m.

Psycho-Surgery

C. Archie Crandell, M.D., Medical Superintendent, New Jersey State Hospital, Greystone Park

Discussor: J. Berkeley Gordon, M.D., Medical Superintendent, New Jersey State Hospital, Marlboro

11:00 a. m. - 12:15 p. m.

Panel Discussion—Hypothetical Civilian Disaster

Moderator: Robert H. Kennedy, M.D., Chairman, Committee on Trauma, American College of Surgeons, New York City

Complications of Fractured Ribs

George N. J. Sommer, Jr., M.D., Thoracic Surgeon, St. Francis Hospital, Trenton

Emergency Management of Burns

Paul Mecray, Jr., M.D., Chief, Surgical Service C, Cooper Hospital, Camden

Treatment of Acute Traumatic Lesions of the Hand

John J. Flanagan, M.D., Attending, Orthopedic

and Fracture Service, St. Michael's Hospital, Newark

Emergency Treatment of Intracranial Lesions
Thomas S. P. Fitch, M.D., Attending Neurosurgeon, Muhlenburg Hospital, Plainfield

---

Monday, Afternoon, May 14, 1951

MEDICINE

(Presented by Sections on Allergy, Metabolism and Radiology)

2:30 p. m.

Management of Allergic Conditions of Upper Respiratory Tract
Nathan Schaffer, M.D., Chief of Allergy, East Orange General Hospital, East Orange
Edward E. Seidmon, M.D., Plainfield, Chief of Allergy, Newark Veterans Administration Regional Office

3:00 p. m.

The Evolution of Insulin Therapy in Diabetes Mellitus
Selma Weiss, M.D., Chief, Metabolic Service, City Hospital, Newark
Discussor: Everett O. Bauman, M.D., Associate in Metabolism, City Hospital, Newark

3:30 p. m.

Evidence of Arteriosclerosis in a Study of 250 Younger Age Group Diabetic Veterans
Otto Brandman, M.D., Associate in Metabolism, City Hospital, Newark
Discussor: Henry Dolger, M.D., Adjunct Physician in Metabolic Diseases, Mt. Sinai Hospital, New York City

4:00 p. m. - 5:00 p. m.

Radio-Isotopes in Medicine
Henry D. Diamond, M.D., Assistant Attending, Memorial Hospital, New York City
Discussor: Louis J. Levinson, M.D., Director, Radio-Isotopes Department, Beth Israel Hospital, Newark

---

SURGERY

(Presented by Sections on General Surgery and Radiology)

2:30 p. m.

Lesions of the Esophagus
William Reinhoff, M.D., Associate Professor of Surgery, The Johns Hopkins Medical School, Baltimore
Discussor: Julian Johnson, M.D., Assistant Professor of Surgery, University of Pennsylvania School of Medicine, Philadelphia

3:10 p. m.

Radiological Aspects of Esophageal Lesions
Peter J. Gianquinto, M.D., Radiologist, St. Barnabas Hospital, Newark
Discussor: C. Abbott Beling, M.D., Attending Surgeon, St. Barnabas Hospital, Newark

3:40 p. m. - 4:20 p. m.

Symptoms Following Biliary Tract Surgery
Earl J. Halligan, M. D., Chief of Surgery, St. Francis Hospital, Jersey City
Discussors: Hilton S. Read, M. D., Ventnor, Chief of Intern and Resident Education, Atlantic City Hospital, Atlantic City
Irvin E. Deibert, M.D., Chief, Surgical Department, Cooper Hospital, Camden

---

Tuesday Afternoon, May 15, 1951

MEDICINE

(Presented by Sections on Chest Diseases and Heart Diseases)

2:30 p. m.

Symposium on the Recent Advances in the Diagnosis and Treatment of Heart Diseases
Moderator: Howard B. Sprague, M.D., President, American Heart Association, Boston

2:40 p. m.

Radiological Aspects
Henry K. Taylor, M. D., Roentgenologist, Goldwater Memorial Hospital, New York City

3.05 p. m.

Electrocardiographic Aspects
Samuel Bellet, M.D., Associate Professor of Cardiology, Graduate School of Medicine, University of Pennsylvania, Philadelphia

3:30 p. m.

Medical Therapy
Jerome G. Kaufman, M.D., President, New Jersey Heart Association, Newark

3:55 p. m.

Surgical Therapy
Charles P. Bailey, M.D., Professor of Thoracic Surgery, Hahnemann Medical College, Philadelphia

4:20 p. m. - 5:00 p. m.

Questions and Discussion from the floor

SURGERY

(Presented by Sections on Urology and Eye, Ear, Nose and Throat)

2:30 p. m.

The General Practitioner As Urologist
Elmer Hess, M.D., President-Elect, The American Urological Association, Erie, Pa.
Discussors: C. Byron Blaisdell, M.D., Director of Urology, Fitkin Memorial Hospital, Asbury Park
Harry Taff, M.D., Secretary, General Practitioners Section, Academy of Medicine of Northern New Jersey, Newark

3:00 p. m.

Lumbar and Right Quadrant Pain
W. Kenneth Wheeler, M.D., Attending Urologist, Presbyterian Hospital, Newark

Discussors: Charles H. deT. Shivers, M.D., Secretary, The American Urological Association, Atlantic City
Theodore Silverman, M.D., President-Elect, New Jersey Chapter, American Academy of General Practice, Elizabeth

3:30 p. m.

Ocular Classification of Hypertension
Glen G. Gibson, M.D., Professor of Ophthalmology, Temple University School of Medicine, Philadelphia
Discussor: Robison D. Harley, M.D., Assistant Professor of Ophthalmology, Temple University School of Medicine, Philadelphia

4:00 p. m. - 4:30 p. m.

The Poliomyelitis-Tonsillectomy Problem
Daniel S. Cunning, M.D., Clinical Professor of Otolaryngology, New York University School of Medicine, New York City
Discussor: Ellis L. Smith, M.D., Medical Director, Essex County Isolation Hospital, Belleville

Wednesday Morning, May 16, 1951

MEDICINE

(Presented by Section on General Medicine, in collaboration with Sections on Allergy, Metabolism, Ophthalmology, Pediatrics and Rheumatism)

NOTE: Because of the many important papers on this program, the meeting will start promptly at 9:00 a. m.

9:00 a. m. - 12:00 noon

Symposium on ACTH and Cortisone
Metabolic Changes Incident to the Use of ACTH and Cortisone
George A. Perera, M.D., Associate Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York City
The Role of Cortisone and ACTH in the Basic Mechanism of Rheumatoid Diseases
Thomas McPherson Brown, M.D., Professor of Medicine, George Washington University School of Medicine, Washington, D. C.
Study of the Collagen Diseases
Louis Soffer, M.D., Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York City
Allergic Disturbances
Richard A. Kern, M.D., Clinical Professor of Medicine, Jefferson Medical College, Philadelphia
Uses in Ophthalmology
Glen G. Gibson, M.D., Professor of Ophthalmology, Temple University School of Medicine, Philadelphia
Panel Discussion
Richard A. Kern, M.D., Moderator

SURGERY

(Presented by Sections on Obstetrics and Gynecology and Anesthesiology)

9:00 a. m. - 11:00 a. m.

Symposium on Pelvic Surgery
Moderator: Samuel A. Cosgrove, M.D., Medical Director, Margaret Hague Maternity Hospital, Jersey City
Non-Malignant Tumors
John B. Montgomery, M.D., Professor of Gynecology, Jefferson Medical College, Philadelphia
Malignant Tumors
James A. Corscaden, M.D., Chief of Gynecology, Presbyterian Hospital, New York City
Discussors: Inglis G. Frost, M.D., Chief, Endocrine Clinic, Women's Hospital, New York City
Hammell P. Shipps, M.D., Chief of Gynecology, Cooper Hospital, Camden
Leon Motyloff, M.D., Chief Pathologist, Women's Hospital, New York City

11:00 a. m. - 12:00 noon

Recent Trends of Analgesia and Anesthesia in Obstetrics and Gynecology
Robert A. Hingson, M.D., Associate Professor of Obstetrics, The Johns Hopkins Hospital, Baltimore
Discussors: Edward G. Waters, M.D., Division Chief of Obstetrics, Margaret Hague Maternity Hospital, Jersey City
Irving R. Hayman, M.D., Associate Anesthetist, Barnert Memorial Hospital, Paterson

GENERAL SESSION

Tuesday Evening, May 15, 1951

8:30 p. m.

Panel Discussion—Civil Medical Defense
Moderator: Andrew F. McBride, Jr., M.D., Chairman, Committee on Civil Medical Defense, Paterson
Panel:
Leonard Dreyfuss, Director, New Jersey State Civil Defense Organization
Daniel Bergsma, M.D., Chairman, Health, Medical and Welfare Preparedness Committee, New Jersey State Civil Defense Organization
James C. Sargent, M.D., Chairman, Council on National Emergency Medical Service, American Medical Association
Norvin C. Kiefer, M.D., Director, Health Resources Division, National Security Resources Board

This will be an open meeting for all members of the Society and the Woman's Auxiliary, representatives of the allied medical professions, the press and local and state civil defense organizations.

MOTION PICTURE THEATRE

Through the offices of the Health, Welfare and Medical Preparedness Committee of the State Civil Defense Organization, a three part film on the Medical Effects of the Atomic Bomb has been reserved for showing daily during the annual meeting. Other timely and interesting films on civil defense and medical preparedness will also be procured for your information.

LUNCHEONS

Monday, May 14, 1951—12:30 P. M. - 2:30 P. M.

Section on Clinical Pathology
Section on General Surgery
Section on Radiology

Tuesday, May 15, 1951 - 12:30 P. M. - 2:30 P. M.

Section on General Practice
Section on Neuropsychiatry
New Jersey Chapter, American College of Chest Physicians
Section on Health Diseases

SCIENTIFIC EXHIBITS

Cardiology in a Psychiatric Hospital—Albert Abraham, M.D., U. S. Veterans Administration Hospital, Lyons.

Meckel's Diverticulum — Thomas A. Shallow, M.D., Jefferson Medical College, Philadelphia.

Gastroscopic Biopsy—Paul L. Shallenberger, M.D., Guthrie Clinic, Sayre, Pa.

Hypertension Due to Pheochromocytoma — Marvin C. Becker, M.D., Jerome G. Kaufman, M.D., Newark and Michael Carlozzi, M.D., Rahway.

Reconstruction of the Auricle with Diced Cartilage Grafts in a Vitallium Ear Mold—Lyndon A. Peer, M.D., and John C. Walker, Jr., M.D., Hospital of St. Barnabas and for Women and Children, Newark.

Lesions of the Blood Forming Organs—Samuel A. Goldberg, M.D., Presbyterian Hospital, Newark.

Tumors of the Mediastinum—Henry A. Brodkin, M.D., and Emanuel Klosk, M.D., Newark.

The Diagnostic Role of Radioactive Isotopes—Bernard Roswit, M.D., Veterans Administration Hospital, Bronx, N. Y., in collaboration with the Academy of Medicine of Northern New Jersey and the Essex County Chapter, American Cancer Society, Newark.

The Scope and Problems of Plastic Surgery—Hans May, M.D., Philadelphia.

In addition to the above the following have indicated they will present scientific exhibits but at this time the exhibit titles are not available.

Raphael Pomeranz, M.D., and Henry H. Kessler, M.D., Newark.

John W. Gray, M.D., Newark.

Frederic J. Quigley, M.D., Medical Director, B. S. Pollak Hospital for Chest Diseases, Jersey City.

M. Jonas Colmer, M.D., Newark.

Rita S. Finkler, M.D., Newark.

EDUCATIONAL EXHIBITS

New Jersey State Department of Health.

Joint Committee on Professional Relations of the New Jersey Pharmaceutical Association and The Medical Society of New Jersey.

Medical-Surgical Plan of New Jersey.

American Cancer Society, New Jersey Division, Inc.

Physician Resources Committee, The Medical Society of New Jersey.

TECHNICAL EXHIBITORS

Ayerst, McKenna & Harrison, Ltd., New York
Baby Development Clinic, Chicago
Baby Service, Inc., Newark
Baldwin Pharmacal Co., Inc., Newark
Bilhuber-Knoll Corporation, Orange
E. and W. Blanksteen, Jersey City
The Borden Company, New York
Brewer & Company, Inc., Worcester, Mass.
Bristol-Myers Company, New York
Buffington's, Inc., Worcester, Mass.
Burroughs Wellcome & Co., (U. S. A.), Inc., Tuckahoe, N. Y.
Camel Cigarettes, New York
Cameron Surgical Specialty Company, New York
Carnation Company, Los Angeles
Ciba Pharmaceutical Products, Inc., Summit
Clark & Clark, Wenonah, N. J.
The Coca-Cola Company, Atlanta, Ga.
Coreco Research Corp., New York
The Doho Chemical Corporation, New York
Faulhaber and Heard, Inc., Newark
C. B. Fleet Company, Inc., Lynchburg, Va.
Foen-Sanitex Company, New York
General Electric X-Ray Corporation, Milwaukee
Gerber Products Company, Fremont, Mich.
Hanovia Chemical and Manufacturing Co., Newark
Hoffmann-LaRoche, Inc., Nutley
Holland-Rantos Company, Inc., New York
Lederle Laboratories Division, American Cyanamid Company, New York
The Liebel-Flarsheim Company, Cincinnati
Eli Lilly and Company, Indianapolis
Lissco Medical Company, Inc., Newark
M and R Dietetic Laboratories, Inc., Columbus
The Mara Laboratories, Inc., Harrison
The S. E. Massengill Company, Bristol, Tenn.
Duncan C. McLintock Co., Inc., Hackensack
Mead Johnson & Company, Evansville, Ind.
Medco Products Co., Tulsa, Okla.
The Mennen Company, Newark
The Wm. S. Merrell Company, Cincinnati
Philip Morris and Co., Ltd., Inc., New York
The C. V. Mosby Company, St. Louis
Nestle Company, Inc., Colorado Springs, Colo.
Ortho Pharmaceutical Corporation, Raritan, N. J.
Parke, Davis & Company, Detroit
Pet Milk Sales Corporation, St. Louis
Chas. Pfizer & Co., Inc., Brooklyn, N. Y.
Sandoz Chemical Works, Inc., New York
Saratoga Springs Authority, Saratoga Springs,N.Y.
W. B. Saunders Company Philadelphia
Schering Corporation, Bloomfield
G. D. Searle & Co., Chicago
Sharp & Dohme, Inc., Philadelphia
Smith, Kline and French Laboratories, Philadelphia
South Jersey Surgical Supply Co., Red Bank, N. J.
E. R. Squibb & Sons, New York
The Upjohn Company, Kalamazoo, Mich.
Varick Pharmacal Company, New York
U. S. Vitamin Corporation, New York
White Laboratories, Inc., Newark
Winthrop-Stearns, Inc., New York
Wyeth Incorporated, Philadelphia

PROPOSED CONSTITUTIONAL AMENDMENTS

The following proposed amendments to the Constitution were approved by the House of Delegates at the 1950 Annual Meeting and will be presented for final approval at the meeting in May, 1951. The proposed amendments are herewith published in full in compliance with the constitutional provision to that effect.

ARTICLE V—HOUSE OF DELEGATES

Delete the phrase "and shall hear appeals from the decisions of the Judicial Council,".

The amended Article will then read: "The House of Delegates shall be the *legislative* body, and shall consist of the Fellows, Officers and Delegates."

ARTICLE VII—COUNCILORS

Amend this article to read as follows: "The Councilors collectively shall comprise the Judicial Council which shall be the judicial body of the Society. The House of Delegates shall organize five (5) councilor districts within the state. It shall elect one (1) councilor to represent each district from among the membership of each such district."

ARTICLE IX—OFFICERS

Amend Section 2—"Election" (first line) now reading: "The Officers shall be elected by this Society. . ." to read: "The Officers shall be elected by the House of Delegates. . ."

WE CAN DEFEND OURSELVES

Atom Bomb Defense for Civilians

The following outline of atom bomb defense was prepared for the Jersey City Defense Council by Dr. Arthur D. Zampella of that city. It is published for the interest of all concerned. Copies of this in pamphlet form may be obtained from Dr. Zampella at 921 Bergen Avenue, Jersey City.

Types of Atomic Bomb Bursts.

a. Air—most destructive, most likely to be used.
b. Ground—dust becomes radioactive and contaminates.
c. Water—water becomes radioactive and is dispersed by wind.

Atomic Bomb Effects in Order of Capacity to Cause Injuries.

a. Blast Effect—60 per cent of casualties.
   (1) Direct air blast.
   (2) Indirect solid blast (falling debris, masonry, etc.)
b. Thermal Effects (burns)—30 per cent of casualties.
c. Radiation Effect—10 per cent of casualties.
   (1) Immediate.
   (2) Delayed.

NOTE: Earth, reinforced concrete and steel are effective in protection from all of preceding bomb effects.

Warning Signs.

a. Air Raid Signals (Eastern Air Defense Force, U.S.A.F.).
   (1) Code name "red" (warning)—a rising and falling siren signal or a series of short blasts by horn or whistle lasting three minutes.
   (2) Code name "white" (all clear)—three one minute blasts by siren, horn or whistle with a two minute interval between each blast.
b. Advance air raid warning will make it possible to seek shelter in basement, preferably, away from windows and doors.
c. Brilliant "ball of fire" in sky or momentary sudden increase in light out of doors is an indication of atomic blast, requiring immediate protective measures.

NOTE: *Bacteriologic and chemical warfare are not to be excluded as possible hazards.*

a. Importance of avoiding contamination. Decontamination principles herein described under "First Aid Considerations" applicable.
b. Protect food, milk and water against exposure to hazards. Canned or bottled food in intact containers is preferable to avoid bacteriological, chemical or radiological effects.
c. Avoid liquids, solid food, and tobacco, until they are declared safe and uncontaminated.

PROTECTIVE MEASURES ACCORDING TO WHERE ONE FINDS HIMSELF

1. *Out-of-Doors on Foot.*
   a. If warning time is sufficient, seek shelter in nearest basement or subway. If underground refuge is not available, stay on ground floor away from doors or windows and large expanses of glass.
   b. If time is insufficient, drop instantaneously to the ground and lie face down in doorway or against wall to avoid falling debris, bricks and glass; back toward source of blast shielding head, neck, chest, arms and abdomen, covering exposed skin areas and keeping

eyes closed. If carrying or wheeling an infant, cover him with a blanket and shield him against the blast effect. Maintain your position for at least ten seconds; longer, if debris is falling.

c. Loosely fitting light colored clothing is better than tight dark colored clothing for protection against the radiation hazard.

2. *Out-of-Doors in Automobile.*

a. Park the vehicle where it will not obstruct traffic and leave keys in ignition.

b. Alight and seek shelter underground.

3. *Indoors.*

a. If warning time is sufficient, descend into basement and lie face down away from windows and doors and with face close to foundation wall. Cover exposed areas of body with blankets or clothes.

b. If blast occurs without warning, crouch or lie face down away from and out of line of doors and windows in "core" or most central portion of building behind protection of inner walls or under or behind sturdy furniture to avoid flying glass, plaster and masonry.

c. Close doors and windows, draw curtains and blinds.

d. Turn off main gas valve, feeding valve from oil tank and main electricity switch to lessen fire hazard.

e. Turn off intake fans to keep out contaminated air.

f. Extinguish all fires. Prevent their spread quickly since winds started by the blast will fan fires which will be numerous.

g. Turn off main water valve in order to conserve supply.

h. Cover broken windows with blankets or other shields to guard against radioactivity and other contamination.

i. Avoid using the telephone. The lines must be left free for vital defense communications.

j. When short circuit hazard is passed turn on radio for possible defense communications.

k. Avoid drinking, eating or smoking until hazard is evaluated especially in atomic bomb ground or water burst.

l. Stay in shelter until all clear signal sounds. If fire or damage forces you to leave the building, cover your nose and mouth with a handkerchief where dust or spray or unusual odor is evident.

PRECAUTIONS TO TAKE BEFOREHAND

1. Familiarize yourself with the location of main electricity switch, main gas and water valves.
2. Get rid of fire hazards. Clean out the basement.
3. Keep several buckets filled with sand and water in convenient locations. Be sure fire extinguishers are filled and in working order.
4. Keep food supplies well protected.
5. Divide defense tasks between members of household, office or plant.
6. Know the location of your bomb shelter.
7. Be acquainted with the whereabouts of your nearest collecting-aid post for casualties.
8. Maintain a well-stocked first-aid kit.

FIRST AID CONSIDERATIONS

1. Avoid removing the patient to a "clean" area for treatment until decontamination has been accomplished to a safe degree in case of an atomic or chemical explosion.
   (a) Cut off and bury contaminated clothing.
   (b) Wash contaminated areas and the body and hair with copious amounts of soap and water repeatedly.
   (c) Change to uncontaminated clothes.
   (d) Minimize amount of exposure of rescue or aid personnel to contamination by external radiation or chemical hazards. Wear protective clothing covering exposed skin areas. Wear gas masks where indicated, especially for water or ground atomic bursts or chemical hazards.
2. Await expert medical aid for serious injuries, where it is readily available. Otherwise transport patient to the aid station or hospital as soon as possible. When delay is experienced, administer first aid or life saving measures where indicated according to best principles.
3. Guard against shock. If no shock, seek treatment quickly. Meanwhile, lower patient's head and keep body warm with blankets. Avoid giving liquids to the unconscious.
4. For burns, where expert aid is not immediately available, apply sterile petrolatum (vaseline) dressings with sterile gauze. Avoid puncturing or cutting blistered areas.
5. Avoid contamination of wounds and resultant infection. Allow contaminated wounds to bleed momentarily before stopping hemorrhage. Use tourniquet only where direct pressure on bleeding point fails. If tourniquet is used, release it intermittently. Dress wound with an antiseptic and sterile gauze.
6. Where there is a question of a bone fracture, improvise a splint if the patient must be moved for safety's sake.

HOW THE PUBLIC SPIRITED CITIZEN MAY HELP

1. Wild aimless effort and fear may be worse than the bomb effects. Fight panic with knowledge.
2. Discourage spreading of unfounded rumors which may represent the enemy within.
3. Keep off the streets to prevent congestion which may interfere with vitally important defense and military movements.
4. Avoid localities and retrieving objects therein declared contaminated, after a chemical explosion or a ground or water atomic bomb burst.
5. Attend first aid courses and defense meetings. Such knowledge is useful even in peacetime civilian disasters.
6. Join the auxiliary fireman and policeman groups.
7. Respond to calls for blood donors.
8. Report to designated station as soon as practicable after alarm.

SURGICAL CONVENTION IN HAWAII

Surgeons looking for an excuse to plan a trip to Hawaii, can now find ample justification for flying to Honolulu by attending the next Congress of the Pan-Pacific Surgical Association. It will be held at the Hawaiian capital, November 10 to 20, 1951.

The object of the Pan-Pacific Surgical Association is to bring together surgeons from countries bordering on the Pacific Ocean to permit exchange of surgical ideas and methods and to develop a spirit of good fellowship among the various races represented. Only four conferences have been held since the organization was conceived—the first in 1929 and the last in 1948.

The Fifth Congress provides an opportunity for doctors to combine a delightful vacation in Hawaii with attendance at a scientific meeting, the program of which will be presented by top-flight surgeons from the Pacific area countries. Doctors are urged to bring their families with them and are promised luxurious accommodations.

To be assured of preferred accommodations, travel and hotel reservations should be made through the Pan-Pacific Surgical Association office, Suite 7, Young Building, Honolulu, T. H.

NEW NEUROLOGY JOURNAL

For the first time in its history, this country will have a journal devoted exclusively to neurology. Sponsored by the American Academy of Neurology, the new periodical has been given the somewhat unimaginative title of *Neurology*. Its first issue comes out this month—January 1951. It will be a bi-monthly covering clinical neurology, neurosurgery, neuro-anatomy, neurophysiology and neuropathology. The subscription rate was not given in the brochure sent to our editorial office. For further information, write to *Neurology*, Lancet Publications, 84 South Tenth Street, Minneapolis 3, Minnesota.

NEW DEAN AT JEFFERSON

Announcement is made of the retirement of Dr. William Harvey Perkins as Dean of the Jefferson Medical College. Dr. Perkins has consented to remain on the faculty as Professor of Preventive Medicine. He will be succeeded as dean by Dr. George Allen Bennett, currently Professor of Anatomy at Jefferson. Dr. Bennett received his M.D. from the University of Munich in 1928. Prior to his entering the medical profession, Dr. Bennett was a scholarship student of archeology and ancient history. In 1929 he was a teaching Fellow in anatomy at Harvard. The following year he became Professor of Histology at Georgetown University Medical School in Washington, D. C. He joined the Jefferson faculty in 1939, starting as an instructor in anatomy, becoming head of that department in June 1948. Dean Bennett is the recipient of the Gold Medical Award of the Academy of Orthopedics for his pioneering work in the structure of the human shoulder.

ANNUAL SESSION OF AMERICAN COLLEGE OF PHYSICIANS

Next annual session of the American College of Physicians will be a four-day meeting beginning April 9, 1951, in St. Louis. For detailed program write to the American College of Physicians, 4200 Pine St., Philadelphia 4.

HEART CLINIC APPROVAL FORMS

The New Jersey Heart Association is now distributing application forms for the approval of heart clinics. For further information, write to New Jersey Heart Association at 790 Broad Street, Newark 2, N. J.

CANCER INSTITUTE FOR NURSES

Under the auspices of the New Jersey Division, American Cancer Society, and with the cooperation of state nursing groups, a Cancer Institute for Nurses will be conducted at Nassau Hall, Princeton University, on Thursday, January 25. Luncheon will be served at Nassau Tavern. The program is under the general auspices of the Professional Education Committee of the division, which is headed by Dr. Joseph I. Echikson, of Newark. The other members are Dr. H. Wesley Jack, Camden, Dr. James P. Gallo, Paterson, and Dr. J. M. Schildkraut, Trenton.

Further information may be obtained by writing the New Jersey Division, American Cancer Society, 9 Clinton Street, Newark 2, N. J.

OBITUARIES

DR. LAVINIA B. CLEMENT

Dr. Lavinia B. Clement, who practiced medicine in Haddonfield for more than 50 years, died on November 27, 1950, at the age of 83.

Dr. Clement was born in Ohio and was graduated from Woman's Medical College, Philadelphia, in 1894. Dr. Clement was a civic worker, a past state chairman of the public welfare committee of the New Jersey State Federation of Women's Clubs, an honorary member of the Haddon Fortnightly, and an honorary member of the Camden County Medical Society.

DR. WILLIAM P. CHALFANT

Dr. William P. Chalfant, 70, prominent Pitman physician, died suddenly on November 27, 1950.

Dr. Chalfant was graduated from Hahnemann Medical School in 1902 and later took a postgraduate course at Jefferson Medical School. He practiced in Mt. Pocono, Pa., and was personal physician to Admiral Dewey. After serving in the first World War, he established his home and practice in Pitman. He had served as coroner for Gloucester County for 21 years, and was active in religious and fraternal organizations.

DR. GEORGE E. GALLAWAY

Dr. George E. Gallaway of Rahway, died on November 19, 1950, at Fort Myers, Florida. He had practiced in Rahway for fifty-one years, retiring last spring.

Dr. Gallaway was born in Antrim, N. Y., in 1876. He was a graduate of New York University and served with the Army during World War I. He was active in civic and fraternal affairs and had served the city and many organizations in numerous capacities.

DR. CLARENCE S. JANIFER

Dr. Clarence S. Janifer, Sr., Newark, died on November 14, 1950, at the age of 64.

Dr. Janifer received his medical degree at New York Homeopathic Medical College in 1915. During World War I he served overseas. He was one of the first Negro physicians appointed to the staff of City Hospital, Newark, where he had been a member of the pediatrics staff since 1948. He had been affiliated with the Newark Health Department since 1921.

DR. KURT MARCUS

Dr. Kurt Marcus of Jersey City died on November 28, 1950, after an illness of two months.

Born in East Prussia in 1899, Dr. Marcus came to this country 11 years ago and had practiced in Jersey City for the last 5 years. He was a graduate of University of Berlin Medical School.

DR. J. PHILLIP STOUT

Dr. J. Phillip Stout of Red Bank, died on November 22, 1950, at the age of 60.

Dr. Stout, a native of Jersey City, moved to Red Bank three years ago. He was a graduate of Cornell Medical School and had practiced in Jersey City until ill health forced him to retire from active practice six years ago.

Dr. Stout was attending pediatrician at Christ Hospital and at the Margaret Hague Maternity Hospital. He had serviced with the Marine Corps during World War I. He was an emeritus member of the Hudson County Medical Society and The Medical Society of New Jersey.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

ATOMIC WARFARE TRAINING COURSE

More than 500 persons throughout New Jersey attended a four day introductory course on atomic warfare in Trenton during November. Purposes were to offer basic, relatively non-technical information about atomic energy and atomic warfare to facilitate understanding of the medical, health, and welfare aspects of civil defense planning, and to stimulate close collaboration in local and state planning.

Representation at the course included physicians, dentists, nurses, hospital administrators, pharmacists, engineers, chemists, teachers, civil defense officials and health officers.

The course was sponsored by The Medical Society of New Jersey, the State Department of Health, and the State Division of Civil Defense. Material was obtained from training courses of the National Security Resources Board, National Research Council, Atomic Energy Commission, U. S. Army, U. S. Navy, the U. S. Public Health Service, and the American Medical Association. This material was adapted to provide basic information on health, medical, and welfare problems. Courses more technical in character, for specific groups will be offered in 1951.

Individuals who presented course content or who otherwise spoke to the group included Leonard Dreyfuss, State Director of Civil Defense; Aldrich C. Crowe, M.D., president of The Medical Society of New Jersey; Donald J. Nelson, Jr., engineer, Simon Kinsman, chemical engineer, and Samuel Ingraham, M.D., all of the Radiologic Unit of the U. S. Public Health Service; Daniel Bergsma, M.D., State Commissioner of Health and chairman, Medical, Health, and Welfare Preparedness Committee of the state organization for civil defense; John Henderson, M.D., Medical Director, Johnson and Johnson; Stephan Fromer, M.D., Medical Research Department, Merck and Company, Rahway; Dr. William H. Ittelson, Professor of Psychology, Princeton University; Dr. A. K. Parpart, of Princeton University, an authority on blood derivatives and blood substitutes; Dr. Walter Maclinn, of Rutgers University, who served the military forces in World War II by his study and personal testing of nutritional elements of World War II emergency rations; Eugene Katzin, M.D., Newark, chairman of the Blood and Plasma Committee of the Essex County Medical Society; William T. Read, Jr., M.D., Camden, chairman of the Medical Advisory Committee of the Camden County Red Cross Blood Program; Harrold A. Murray, M.D., Newark, first vice-president of The Medical Society of New Jersey; Gerald W. Sinnott, M.D., Jersey City, chairman of the Emergency Planning Committee of the New Jersey Hospital Association; J. Harold Johnston, executive director of the State Hospital Association; Joseph Rzigalinski, engineer of the Bureau of Adult and Industrial Health of the State Department of Health; and Margaret Zealand, Nutritionist, State Department of Health. Planning of the course was handled to a considerable extent by Marie A. Sena, M.D., Chief of the Bureau of Adult and Industrial Health of the State Department of Health.

The course dealt with various aspects of atomic explosions and what must be done following them; decontamination measures; medical care; control of panic; and problems involving blood grouping and blood banks, identification, rescue, hospitalization, emergency feeding and sanitation.

The entire course content was recorded. The material will be edited and subdivided to make specific sections available to the groups interested in such sections. A substantial part of the proceedings probably will be printed in *Public Health News,* monthly publication of the State Department of Health.

In discussion periods, members of the audience expressed a sense of urgency about receiving definite instructions on civil defense. Dr. Bergsma pointed out that before such instructions can be issued, qualified persons must decide what therapies and specific equipment are to be used. When this is known, it will be possible to estimate more intelligently the amount and types of materials needed per unit of population. Subcommittees have been working since last summer and recommendations should be forthcoming shortly which will serve as a basis for giving more specific information. He stressed the need for standardization and agreement with references to emergencies which may be likely to cross state lines.

A feature of the training course was the publicity given to it by New Jersey radio stations and the press. The New Jersey Broadcasters' Association sent an official representative and certain of the stations sent their own representatives. A staff correspondent of the *Newark Evening News* was in daily attendance.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, November 10, 1950, Dr. G. Ruffin Stamps presiding.

DR. PRISCILLA WHITE, a member of the staff of the Joslin Clinic, Boston, Massachusetts, was the guest speaker. Her subject, "The Management of Diabetes during Pregnancy" was presented in fine detail, showing the tremendous advance that her research group has made in this field of medicine.

DR. HENRY B. DECKER, Second Vice-President of The Medical Society of New Jersey, was presented to the Society by Dr. Stamps, and spoke briefly and informally of the various State Society activities and aims.

Dr. Stamps extended the felicitations of the Society to Dr. Allman on the announcement of his retirement from active practice.

Dr. Salasin, reporting for the Public Health Committee announced that his committee has been very active and had expended much time and energy in correlating the extensive activities scheduled for Public Health Week. Dr. Holland explained the Poster Contest that had taken place in the various high schools, and displayed a large number of excellent posters each portraying some phase of Public Health week. This exhibit was truly remarkable in thought and execution, and their display should do much to arouse lay interest.

Dr. Stamps, commenting on a motion that had been made in the September meeting of last year, namely, to honor members who had been in active practice for over fifty years, by remitting their dues from that time on, stated that actually the Society had no authority to assume such an obligation for a period beyond a single year. A motion was made by Dr. Reyner, seconded and carried, that the President appoint a committee to draw a set of resolutions honoring those four men for this year, and all others who will fall into this category in the future. There was further pro and con discussion at this point, but it was brought out by Dr. Allman that the only way that dues can be permanently rescinded is by emeritus membership. Such a status retains membership at all levels, local, state, national, but the member must be retired from active practice.

Dr. Timberlake, reporting for the Welfare Committee, explained in detail what course must be pursued to obtain a revision of fees in Child Welfare cases.

A recommended set of uniform by-laws, to be substituted for present by-laws effective in this Society relative to the handling of complaints and grievances, was presented to the Society for immediate consideration. In compliance with Article XIII, of the By-Laws of this Society, the proposed amendment was read to the Society, and in further compliance, will be printed in the December issue of the Bulletin.

Dr. Mollitch, reporting for the Pharmacists' Liaison Committee, outlined a series of suggestions that had been proposed at a meeting of his committee with a committee representing the Pharmaceutical Society. The proper method of ordering narcotics, of writing narcotic prescriptions and of maintaining ethical doctor-druggist relationship was noted.

BURLINGTON COUNTY

Freeman W. Metzer, M.D., Reporter

The regular monthly meeting of the *Burlington County Medical Society* was held at the Riverton Country Club on November 9, 1950.

Our program committee was fortunate in being able to present DR. RICHARD T. SMITH, who is chief of Arthritis at Pennsylvania and Jefferson Hospitals in Philadelphia, and rheumatologist of the Benjamin Franklin Clinic of that city. His subject "Building a Treatment Program in Arthritis" was a timely one. The presentation was illustrated with slides, and he brought to us a practical side of this subject which is sometimes overlooked or little stressed.

Our Public Health Committee is making every effort to assure success in its program for "Public Health Week". It has notified all groups and organizations throughout the county and publicized its plans in all local papers on several occasions.

New members voted on and approved at this meeting were EDWIN H. HARRIS, M.D., who is doing general practice in Moorestown, and LINDLEY B. REAGAN, M.D., who is Dr. T. J. Summey's assistant in surgery at Burlington County Hospital in Mt. Holly.

The Annual Dance is to be held December 16 at the Armory in Mt. Holly.

The regular meeting of the *Burlington County Medical Society* was held at the Riverton Country Club on December 14, 1950, at 9:00 p. m.

Our Program Committee obtained as speaker W. PAUL HAVENS, JR., M.D., who is chief of Section of Infectious Diseases, Pennsylvania Hospital, Philadelphia. He spoke on "Differential Diagnosis in Hepatic Disease". It was adequately illustrated with slides, and he stressed in particular the pitfalls in the tests of liver function and in interpretation of those tests. He also stressed the importance of a good history and a thorough physical examination.

The fee schedule of the Board of Child Welfare as applicable to the physicians in Burlington County came up for discussion. The local committee who reviews the cases under the Burlington County Welfare Board was authorized to draw up a fair schedule of fees to be presented to the Board of Child Welfare for its consideration.

The President announced that Burlington County still leads with over 90 per cent of the physicians having paid their 1950 A.M.A. dues.

The Nominating Committee submitted names for consideration for offices 1951 - 1952.

CAMDEN COUNTY

L. G. McAfoos, Jr., M.D., Reporter

Under the chairmanship of DR. O. R. KLINE, its president, the *Camden County Medical Society* held its regular monthly meeting on December 5, 1950, at the City Dispensary Building.

DRS. R. K. HOLLINSHED, J. F. COLLIER, C. P. NAY, H. B. LOVETT, JR. and J. M. PULLIAM, JR., were introduced to the Society after taking the oath of membership and signing the roll book.

The meeting was then turned over to Dr. Robert N. Bowen of the Program Committee who introduced the speaker of the evening, DR. WILLIAM BOLGER, of the Department of Internal Medicine, University of Pennsylvania, who presented a most interesting paper of *The Uses and Abuses of Antibiotics.*

Dr. A. G. Pratt read a report on his survey of the Constitution and By-Laws, which included considerable revision and many recommended amendments.

The chairman of the Nominating Committee, Dr. Thomas McGlade, placed in nomination the names of DRS. H. A. JACK and I. E. DEIBERT for the District Judicial Council; the term of Dr. Jack to be from January 1, 1951, to May 31, 1951, and that of Dr. Deibert to be from January 1, 1951, to May 31, 1952. It was moved, seconded and passed that the secretary cast the ballot electing these men.

Mr. Allen R. Eckman reviewed the activities of Public Health Week, and paid tribute to the many who helped him with this project. The president then took this opportunity to thank Mr. Eckman for his invaluable aid in making the project a success.

A memorial upon the passing of DR. LAVINIA B. CLEMENT, prepared by Drs. Howard and Glover, was read. It was moved, seconded and passed that a copy of this memoir be spread upon the minutes and a copy sent to the bereaved family.

CUMBERLAND COUNTY

Norman W. Henry, M.D., Reporter

The *Cumberland County Medical Society* held its regular meeting at Richards' Farm, December 12, 1950. The business section was presided over by the president, DR. CARL WARE. DR. GEORGE F. RISI, of Millville, was voted upon for membership in our society.

The head of the Red Cross Disaster Program commented highly on the organization and the cooperation of the physicians of our county who devoted many hours in taking care of the approximately seven hundred flood victims of Port Norris and surrounding territories.

The question of a nominating committee in the form of a new by-law of our society, will be brought to a vote at our next regular meeting. Heretofore, the executive committee performed this task.

It was with great pleasure that the subject *Complicating Obstetrical Problems and Their Management* was discussed by our guest speaker, DR. JOHN H. DUGGER, chief of Obstetrics at the Episcopal Hospital, Philadelphia. Case reports included bleeding in the last trimester, transverse lies, and prolonged labors. He showed two movie films in color; the first of which was the classic Cesarean Section with local anesthesia, and secondly, the extraperitoneal Cesarean Section. This interesting and problematic subject was well received and informative.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The regular monthly meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club, November 16, 1950. President A. GUY CAMPO first called upon Mrs. James Clark, Gloucester County Cancer Society representative, who discussed the film concerning self examination of the breast. Mrs. Clark wished the physicians to see this film before it was shown to school children. No adverse criticism was heard when the movie was shown at the conclusion of the regular meeting.

"Massive Hemorrhage from the Upper Gastro-Intestinal Tract" was the subject presented by KENNETH E. FRY, M.D., associate professor of Surgery at Jefferson Medical College. In addition to the ordinary causes of such bleeding, Dr. Fry dealt with portal hypertension and the various shunting operations now utilized. Many pertinent questions were ably answered in the discussion period.

Dr. Herman Wright reported some controversy concerning bills rendered to the County Old Age Assistance, reminding the members that no patient could be charged more than $25 in one month, and then only with special permission.

Dr. Frank LaRosa reported for the Civil Defense Committee, and Dr. Wendell Burkett brought us up to date on the drafting of physicians.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

Hudson County Medical Society held its regular monthly meeting on December 5, 1950, at Murdoch Hall, Jersey City Medical Center with DR. MEYERSON presiding.

The Committee's Public Relations counsel, MR. NEVIN, reported briefly on a meeting of the Public Relations group on November 14, 1950, when a preliminary discussion pertaining to the Society's centennial celebration took place. Among suggestions looked upon with favor for highlighting the Society's 100th year, were (1) the sponsoring of an Essay Contest on an appropriate subject, in which all high school students of Hudson County would be invited to participate; (2) the honoring of the Society's oldest members at a dinner during the last quarter of the current official year; (3) the providing of speakers, under direction of the speakers bureau, for school assemblies throughout the county and on other platforms appropriate for presenting the progress of medicine over the past one hundred years.

The following were elected to membership: DR. HAZEL LIN, DR. JOSEPH M. LALLY and DR. GENEVIEVE WIELUNSKA all of Jersey City.

The January meeting will be held jointly with the Hudson County Dental Society on January 2, 1951. Guest speaker will be DR. HAYES MARTIN of New York, whose subject will be *Malignancy of the Oral Cavity.*

The guest speaker of the evening was Dr. Frank Glenn, Surgeon-in-Chief at the New York Hospital. Illustrating his presentation with lantern slides, Dr. Glenn discussed in detail the *Surgical Aspects of the Treatment of Peptic Ulcer.*

MIDDLESEX COUNTY

Martha F. Leonard, M.D., Reporter

The regular November meeting of the *Middlesex County Medical Society* was called to order at 9 p. m., on November 22, 1950, at the Roosevelt Hospital, by the president, Dr. H. P. Fine.

Dr. Fine reported on a meeting of the state Committee on Procurement and Assignment. Dr. Fine appointed the following county committee on Procurement and Assignment: Dr. Wilentz, chairman, Dr. Taber and Dr. Weber.

The report of the nominating committee was presented by Dr. Malcolm Dunham.

Reporting for the Civilian Medical Defense Committee, Dr. Marshall Smith announced a plan for blood typing and administration of tetanus toxoid for every citizen of Middlesex County, such information to be incorporated into a "dog tag". The First Aid College given in collaboration by Middlesex and Union Counties was a huge success and well attended. Assignment of doctors in case of disaster is complete for the New Brunswick area and under way for the Perth Amboy area.

Dr. Sidney Becker of the General Practitioners' Committee stated that general practitioners in some areas did not have access to the hospitals and lost contact with their patients once they were admitted. A plea was made that the general practitioner be allowed to be second assistant at operations on his patients. After some discussion, it was moved and passed that the General Practitioners' Committee meet with the chiefs of the surgical staffs of each hospital in the county to discuss this problem and to bring back its recommendations to a subsequent meeting of the county society.

It was requested that any member of the society who is inducted into the armed services report this fact to the office secretary.

Dr. Fine commended the Public Health Week exhibit in Perth Amboy for its excellent and interesting presentations, its good attendance, and its contribution to good will toward the medical profession. Dr. Church announced that the diabetes detection program tested 200 volunteers and found 10 with glycosuria and 20 more with traces of urinary sugar.

Dr. Fishkoff discussed a problem concerning the Medical-Surgical Plan whereby subscribers with incomes of less than $5000 may not be charged more than the published rates of the plan. He suggested that this limitation should apply only to those families where the combined income of all working members was less than $5000. In a general discussion of Medical-Surgical Plan allowances, it was stated that surgical and obstetrical fees were very generous, but medical allowances were entirely inadequate. It was moved and passed that these points be brought to the attention of the proper committee and a report brought back to the society.

Letters from Medical Economics were read asking for information on what this society had done in financial or other assistance to members who had been in World War II or to their families at the time of introduction, the time of return, and at the present time. Another letter from the same journal asked for the names of four or five doctors who would give their views on disability laws, fees, etc. for a forthcoming discussion in the periodical.

A most interesting lecture was given by Dr. Stephen Bennett Yohalem, chief of the Isotope Clinic of the Mt. Sinai Hospital in New York City, on "Clinical Use of Radioactive Iodine in Hyperthyroidism".

MONMOUTH COUNTY

Sidney M. Hodas, M.D., Reporter

A regular meeting of the *Monmouth County Medical Society* was held on October 25, 1950, at the Auditorium of the Monmouth Memorial Hospital, with Dr. Samuel Edelson presiding. Dr. Leon Ginzberg, Director of Surgery at Beth Israel Hospital, New York City presented a paper on *Cancer of the Colon.* Dr. Ginzberg discussed the varied symptomatology of the disease, and the improvement in surgical results now possible with newer technics.

Dr. James W. Parker, Jr., and Dr. George A. Sheehan, both of Red Bank, were elected to full membership. Dr. Nicholas J. Arcomano of Long Branch was elected an associate member.

A change in the by-laws to alter the grievance procedure through the creation of a judicial committee was discussed, and is to be brought up again at the next meeting, as requested by the State Society.

A preliminary report of plans for Public Health Week, which is to be held November 13 to November 17, 1950, were announced.

MORRIS COUNTY

Theodore R. Failmezger, M.D., Reporter

The regular monthly meeting of the *Morris County Medical Society* was held on November 16, 1950, at the Chilcott Laboratory Division of The Maltine Company in Morris Plains.

The speaker for the evening was Dr. Morris Block, assistant professor of Clinical Medicine at N. Y. U. Medical College and Associate Visiting Physician at Bellevue Hospital in New York City. His subject was "Chest Infections, Clinical Management".

Dr. Block stressed the importance of the use of antibiotics, especially penicillin, in the treatment of the pneumonias and cited several cases which obtained excellent results. These were augmented with x-ray films showing these results. He also stressed the importance of the use of penicillin in the treatment of empyema and lung abscesses, using x-ray films to further illustrate these cases. The treatment of virus pneumonias with aureomycin and terramycin was illustrated by a series of films.

The meeting was very well attended and was followed by a light supper served through the courtesy of the Chilcott Laboratory.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular meeting of the *Passaic County Medical Society* was held jointly with the New Jersey Chapter of the American College of Chest Physicians at Valley View Sanatorium, Paterson on November 21, 1950, at 9:00 p. m. DR. JOHN E. LEACH, president of the County Society, presided at the meeting.

At the business session preceding the program, the following were elected to membership: Active—HOWARD B. MILLER, M.D., Fairlawn, and GEORGE E. AINSWORTH, M.D., Clifton; Associate—ROBERT H. QUINN, M.D., Clifton, THOMAS F. X. LENIHAN, M.D., Paterson, and DAVID W. JONES, M.D., Paterson.

Homer H. Cherry, M.D., director and superintendent of Valley View Sanatorium, introduced Dr. Willner, Governor of the New Jersey Chapter of the American College of Surgeons and Dr. Donald B. Low, Chairman of the Board of Managers of the Sanatorium, who welcomed the members to this annual meeting which has been held jointly for the past ten years.

Dr. Cherry then introduced the speaker of the evening, H. McLEOD RIGGINS, M.D., visiting physician, Columbia Division, Bellevue Hospital, assistant clinical professor of Medicine, College of Physicians and Surgeons, Columbia University. Dr. Riggins has been closely associated with the American Trudeau Society in the study of chemotherapy in turberculosis. He also has recently published a book on the use of streptomycin and is completing a book on the diagnosis and treatment of tuberculosis. His address on the "Diagnosis and Treatment of Tuberculosis'", was illustrated by x-ray films of very interesting cases.

Following Dr. Riggins' discussion, Dr. Cherry gave a short talk on "Thiosemicarbozone treatment of active pulmonary tuberculosis and its complications".

At the close of the scientific session, Dr. Leach introduced Dr. Harrold A. Murray, vice-president of the State Society, who was our guest at the meeting. Dr. Murray briefly spoke to the members on the activities of the State Society and the need for unity in all efforts.

SALEM COUNTY

John S. Madara, M.D., Reporter

In observance of Public Health Week, the *Salem County Medical Society* presented a Public Health Forum at the Salem High School Auditorium on November 16, 1950, at 8 p. m. The meeting was conducted by the president of the Salem County Medical Society, DR. AUGUST JONAS, who was introduced by the chairman of the Public Relations Committee, Dr. Harry F. Suter.

The topics and the respective speakers were: (1) *Cancer Control*—DR. DAVID G. NEANDER. (2) *Child and School Health*—DR. C. S. FLEMING. (3) *Maternal Health*—DR. AUGUST JONAS. (4) *Civilian Defense*—DR. JOHN S. MADARA. (5) *Advances in Therapy*—DR. HARRY W. FULLERTON. (6) *Heart Disease*—DR. HARRY F. SUTER.

There followed an open period for discussion. The attendance numbered about sixty, but those present were very attentive throughout the entire program.

On November 17, 1950, at 4:30 p. m., the regular monthly meeting of the *Salem County Medical Society* was held at the DuPont-Penns Grove Club.

Mrs. Maurice Chesler, president of the Woman's Auxiliary, impressed us with the need for closer integration between the Society and its Auxiliary. Mrs. Wilbur S. Davison, chairman of the Woman's Auxiliary Advisory Committee, presented the County Program for Improvement of School Health Services. The Society passed a motion to allow the Woman's Auxiliary to carry through this program with its blessing. Dr. Wilbur S. Davison was chosen as school physician for the county and Dr. Charles Gilpatrick as consultant in psychiatry.

The Society approved a plan to allow the Woman's Auxiliary to present a program on cancer control ("Protect Your Most Precious Crop") to the local Grange.

The Society also passed a motion to amend the By-Laws in order to establish a Judicial Committee, which would replace the present Board of Censors.

The report of the Public Relations Committee was given by its chairman, Dr. Harry F. Suter, who congratulated the physicians who participated in the Public Health Forum the previous evening.

UNION COUNTY

E. M. Satulsky, M.D., Reporter

The regular meeting of the *Union County Medical Society* was held November 8, 1950, at the Elizabeth General Hospital. The president, DR. HERSCHEL S. MURPHY, called the meeting to order at 8:30 p. m., and conducted a short business session. He then introduced MISS CHARLOTTE B. MCCRACKEN, Director, Elizabethtown Chapter of the American Red Cross who spoke briefly on "The Red Cross and the Current Scene".

The scientific portion of the program was under the auspices of the Maternal Welfare Committee. Dr. Paul J. Kreutz, its chairman, presided over a panel discussion on "Anoxia of the Newborn with Special Emphasis on Resuscitation". This was a most interesting program and the members of the panel were lucid and well-informed. The panel consisted of: Dr. Henry B. Orton, attending otolaryngologist, Presbyterian Hospital and City Hospital, Newark, professor of Laryngeal Surgery, Polyclinic Hospital, New York; Dr. Perry O. Hall, attending obstetrician, Margaret Hague Hospital, Jersey City; Dr. Arthur Heyman, senior attending pediatrician, Beth Israel Hospital, Newark, and visiting pediatrician, Children's Division, Sea View Hospital, Staten Island, N. Y.; Dr. Nicholas Demy, junior attending roentgenologist, Muhlenberg Hospital, Plainfield, and senior attending roentgenologist, Somerset Hospital, Somerville.

A film entitled, "Asphyxia Neonatorum" was shown through the courtesy of Ernest Bischoff, Inc., Ivoryton, Conn.

WOMAN'S AUXILIARY

NEW YEAR GREETINGS

MRS. R. JOHN COTTONE, President

May God bring peace to this war-torn world and bless you and yours with tolerance, understanding and happiness.

Eight months of our State Medical Auxiliary year have passed. We are all happy to know that an increase of membership has been reported in all but two counties, thus far. Several of our counties have doubled their membership and three report 100 per cent membership. As we grow in numbers we also grow in strength and unity and are able to serve our Medical Society in a fuller measure.

A doctor's wife owes it to her community to observe the community which her husband serves and which in turn serves her husband. In the coming months we will be called upon to learn and teach Civil Defense; let us strengthen our study groups, join with the Red Cross and other local organizations to help in this vital work.

If we will all pull together as one big family we can make this an outstanding year in membership, accomplishments and friendships.

NATIONAL CONFERENCE

The Seventh Annual Conference of state presidents, presidents-elect and national chairmen of standing committees of the Woman's Auxiliary to the American Medical Association was held last month in Chicago.

Mrs. Arthur A. Herrold, National President of the Woman's Auxiliary to the American Medical Association formally opened the conference. Dr. John W. Cline, President-Elect of the American Medical Association was introduced. He urged the maintenance of current activities in public relations and in "medical politics".

Mrs. Harold F. Wahlquist, President-Elect of the National Auxiliary was presented. She stressed health education as a responsibility of the wives of physicians.

Our own Past President of the National Auxiliary, Mrs. David B. Allman, who was Convention Chairman, outlined the program for the national convention to be held June 11 to 15, 1951, at Atlantic City.

The theme of the program, "Public Service Through Health Education", was dominant throughout the five panels and the addresses of the seven speakers during the two-day meeting. The national auxiliary chairmen were the moderators and the state presidents comprised the members of the panels. The participants of the groups were selected geographically to insure urban and rural representation. The panels were:

1. *Organization—Mrs. Leo J. Shaefer, Chairman.* It was reported that 90,000 wives of physicians were non-members of the Auxiliary. This panel defined the purpose, technics, tools and maintenance of an alertly functioning, well informed, enthusiastic organization. Mrs. Holland, of Maine, suggested the nominating committee choose the candidates for offices geographically, using former workers. Mrs. Lybrook, of Indiana, said their state sent the Auxiliary publication to *all* wives of physicians, whether members or not.

2. *Public Relations—Mrs. Theodore E. Heinz, Chairman.* Stress was laid on the importance of developing public relations through a positive approach and interpreting the story of the A.M.A. to the public. The various approaches to the public were emphasized in this panel, i. e., Health Days, Health Education, Nurse Recruitment, and Maternal Welfare. Mrs. Gambrell, of Texas, told of compiling scripts on Health Living for use in grade schools. These kits of scripts have been sent to all forty-eight states and to Alaska.

3. *Program—Mrs. Harry F. Pohlmann, Chairman.* New Jersey was ably represented on this panel by its president, Mrs. R. John Cottone. She discussed our rural health program. Kentucky's president, Mrs. Bailey, displayed an over-sized scrap book, very cleverly executed, to illustrate the work done by the Auxiliary. Schools of instruction, indoctrination of new members, voluntary prepayment insurance plans and publicity were discussed as part of the program planning.

4. *Today's Health—Mrs. Joseph W. Kelso, Chairman.* This magazine is a means of bringing reliable health articles to the public. The Auxiliary was

urged to promote the sales of subscriptions to *Today's Health.*

5. *Legislation—Mrs. Edgar E. Quayle, Chairman.* Participants in this panel re-emphasized the use of study groups; well informed memberships, particularly the legislative group; Auxiliary members as citizenship chairmen in other organizations; letters to congressmen. Mrs. Daniel, of West Virginia, offered the suggestion to use the "True and False Quiz" in the June *Medical Economics.* It was also emphasized that legislative chairmen and groups be chosen carefully and that they know politics.

A question and answer period followed each panel and observations were given by the national chairmen.

An informal "Get-together breakfast" was held on Friday morning. Groups met in three separate dining rooms. This gave us the opportunity of becoming better acquainted with the women of our neighboring states, exchanging ideas, plans, and the solutions of pertinent problems.

Interesting addresses were given by the following:

1. *Dr. Ernest B. Howard,* Assistant Secretary, American Medical Association. Dr. Howard acts in a liaison capacity between the A.M.A. and the Auxiliary. He reported that: (1) There would be continued control of the hospital standardization program by the A.M.A. and the American College of Surgeons. (2) Leadership is necessary in civilian defense. (3) Federal aid to medical education may be on the legislative agenda for 1951.

2. *Dr. George M. Lyons,* Special Assistant in Atomic Medicine, and Chief of the Radio Isotope Section, Veterans Administration, spoke on our part in possible atomic warfare. We should encourage the formation of study groups relative to atomic attack and to assist in first aid training.

3. *Dr. W. W. Bauer,* Director, Bureau of Health Education, A.M.A., discussed health education media for the Woman's Auxiliary. He believes education material must be simple, direct, clear and also the things the public wants to hear. The suggestions are: (1) Pamphlets-reprints of the A.M.A. (2) Radio and television. (3) *Today's Health,* a tool for health education.

4. *Dr. Thomas G. Hull,* Director, Bureau of Exhibits, A.M.A., spoke on the use of exhibits and motion pictures in health education.

5. *Mr. Ralph Greer,* Director, Bureau of Motion Pictures, A.M.A., discussed the wide range of films available for group presentation.

6. *Miss Leone Baxter* of Whitaker and Baxter, National Education Campaign Director, in evaluating the work done in the campaign, mentioned that endorsements against compulsory health insurance had been received from 120 nurses' organizations and 290 local P. T. A.'s.

7. Mr. Clem Whitaker, Director of the National Education Campaign, computed the following in the successful advertising campaign of the A.M.A. for voluntary health insurance: 10,500 newspapers reached about 70 million readers and 50 national magazines covered 170 million readers; 30,000 spot announcements on the radio reached about 49 million people.

A more detailed account of the addresses and the panels will appear in the December *Bulletin.* It is important that you read the *Bulletin.* If you are not already a subscriber, now is the opportune time to mail your dollar and ask that your subscription start with the next issue. The check you were going to mail for your subscription of *Today's Health* could be sent at the same time. Let us be an informed member by reading our own publications first.

DOROTHY B. MCGLADE,
President-Elect.

AUXILIARY REPORTS

Atlantic County

Mrs. Samuel L. Winn,
Press and Publicity Chairman

The regular monthly meeting of the *Woman's Auxiliary to the Medical Society of Atlantic County* was held in the Nurses' Home of the Atlantic City Hospital on November 10, 1950, with Mrs. Clarence Whims, presiding.

The theme of the evening's program was "Nurse Recruitment". Miss Anna Mae Jones, R.N., now serving with the Atlantic City Heart Association, the guest speaker, gave the requirements for a nursing career and also cited some of the many advantages of the profession. Special attention was given to "Career Day"; on such days various high schools are visited. Procedure and advice is freely discussed in an attempt to put any prospects at ease, with a volunteer nurse recruitment increase the main hope. At these times graduate nurses are present in uniform, which is not only impressionable but stimulating as well.

Mrs. William Hersohn submitted a detailed report of the October Barbecue and Dance.

Mrs. Anthony G. Merendino, chairman of Ways and Means Committee, reported the returns of the Hallowe'en Dance for the benefit of the Nurses' Fund. The party was a gala one, costuming was really accepted with much greater enthusiasm than

we dared anticipate. The costumes varied in type from gorgeous to absolutely ridiculous, the scope was of vast variety, and prizes were awarded accordingly.

Our local chairman on Rural Health, Mrs. Herbert Axilrod, was responsible for distributing pamphlets to the members of the New Jersey Education Association during their meeting in Atlantic City, which was held in the Convention Hall.

Following the meeting, Miss Elsie Casperson, Superintendent of Nurses, arranged for refreshments to be served to the Auxiliary members.

December will mean two projects of interest—a Card Party at the Traymore Hotel in the Rose Room, December 13, to replenish the General Fund, Mrs. F. Rolfe Westney, chairman. We urge united cooperation for this party to make it a real successful affair. The December meeting will be held at the Traymore Hotel, our usual meeting place. This meeting will be dedicated to welcoming new members and a suitable program is being arranged by Mrs. G. Ruffin Stamps. The doctors are extended a cordial invitation to join the Auxiliary members to partake of refreshments at the close of their meeting.

Bergen County

Mrs. Winton Johnson,
Chairman of Press and Publicity

The *Woman's Auxiliary to the Bergen County Medical Society* held its annual Christmas Party in the form of a Dinner-Dance at the Oritani Field Club in Hackensack, on December 9, 1950, with 96 persons attending. A sumptuous buffet dinner was served in a large dining room which had been festively decorated by a committee headed by Mrs. Joseph Gatti, assisted by Mrs. Harrison Law and Mrs. Samuel Joseph. All the dining tables were lighted by candles, and the evergreens and streamers of Christmas decorations made the setting one to be remembered for years. Dancing was provided by Johnny Ernst and his orchestra. This meeting has become one of the highlights of the Auxiliary year, partly because the doctors are sharing the evening of dinner and dancing with their wives, partly because it brings together the medical personnel from the several different hospitals in this county, and chiefly because it has always been so perfectly planned that it has brought much joy to everyone present. Mrs. Edward Mancene of Little Ferry was in charge of this event, and she deserves an orchid for it.

Essex County

Mrs. Stuart Z. Hawkes,
Chairman, Press and Publicity

Our Public Relations Day was held at the Academy of Medicine, Newark, on November 15, 1950. An audience of 200 heard our panel on "Voluntary Health Insurance—The Facts" Mrs. Pascal Baiocchi, chairman of Public Relations, and her committee presented an excellent program. Dr. Kenneth Gardner, president-elect of the Essex County Medical Society, was the moderator. The editor of, "American Drubbist", Mr. John McPherrin, spoke on Britain's Health Plan. Mr. John S. Thompson, president of the Mutual Benefit Life Insurance Co., presented the facts of voluntary medical care. One of the officers of the Hospital Service Plan of New Jersey, Mr. Fred Yeaple, told that that plan has an enrollment of one third the population of the state, while Dr. Royal A. Schaaf, president of Medical-Surgical Plan of New Jersey, stated that ten per cent of the state is enrolled in that plan. A stimulating question and answer period followed the panel.

Officers and members of many clubs and P.T.A. groups in Essex County, as well as officers of other Medical Auxiliaries, were guests of the Auxiliary at dessert and coffee before the meeting. Mrs. Otto Matheke, Jr., and her committee had charge of Hospitality.

Before the panel began, Mrs. Baiocchi presented Mrs. R. John Cottone, president of the Woman's Auxiliary to The Medical Society of New Jersey, and our president, Mrs. Jesse T. Glazier, both of whom greeted the audience, as did our County Society president, Dr. Otto Matheke. Our parliamentarian, Mrs. Don A. Epler, explained the resolutions opposing compulsory health insurance. Following the program Mrs. Epler distributed literature and resolutions.

This fall has been a very active one under the able leadership of our president. Our Annual Dinner Dance was held at the Hotel Suburban, East Orange, and as an innovation a cocktail party was given by the Auxiliary before the dance. The attendance was large and everyone had a marvelous time. Mrs. Joseph Clarken and Mrs. John J. Torppey were chairman and co-chairman, respectfully, of the Dance Committee and they did a superb job. The proceeds of the dance go to our Nurse Scholarship Fund.

Once again this year we told the Essex County public about our nurse scholarship over WAAT. The Coffee Club Hour is very popular and we gave many people our message. Mrs. Robert White, chairman of the Nurse Scholarship Committee, spoke, as did her co-chairman, Mrs. George Scheller, and our president, Mrs. Glazier. Mrs. Northwood, director of the Mountainside Nursing School, was on the program with Joan Chilenski, winner of the 1950 scholarship.

Our Arts and Hobbies Committee have interested many members in a Ceramics Class this fall, and a new one will start after the holidays. Mrs. Harry E. DiGiacomo and Mrs. Samuel Pecora are heads of the committee.

Once more the Auxiliary members are busy selling tuberculosis seals at the little house on Market Street. Mrs. Edward Rattene and Mrs. George Parell have charge of Booths.

We are carrying on our work at the Blood Bank in the City Hospital. This service was started by our beloved late member, Mrs. Charles Minnefor, and our efforts at the hospital are our memorial to her memory.

Tuberculosis Abstracts

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV **January, 1951** **No. 1**

THE observant student of pulmonary tuberculosis is impressed by the problems presented by patients in the older age groups. Critical examination of the old misbelief that pulmonary tuberculosis is unusual in persons of advanced years has directed the attention of the profession to the problems arising from the many cases of pulmonary tuberculosis present among older people.

PROBLEMS PRESENTED BY PULMONARY TUBERCULOSIS IN PATIENTS OVER FIFTY

The scope of the problem of tuberculosis in the aged has been brought into increasingly sharper focus by the gradual and wider use of the chest roentgen-ray film as a diagnostic tool. This has taken place since 1930, along with the more widespread use of refined methods of sputum examination for tubercle bacilli. These methods have shown an increased number of cases to have clinically significant pulmonary tuberculosis, whereas by reliance upon the old direct sputum smear method many cases would have been "negative" for tubercle bacilli.

In 1930 Myers stated: "The physician in private practice who insists upon careful examination, including sputum examination, tuberculin test, and X-ray examination of the older people among his clientele, will do much, by arriving at a definite diagnosis, to prevent the spread of tubercle bacilli to the bodies of their associates." At that time other authorities in the field of tuberculosis were also recommending a careful examination including laboratory services for all older people under the care of physicians.

The danger inherent in the contact of an older individual whose sputum is positive for tuberculosis, be it known or unknown clinically, with younger associates, in the intimacy of the home has been stressed by many. In 1940 Wiese wrote: "It is to be hoped that the generally accepted opinion that all elderly persons must cough and that such coughing is without danger to those about them will soon be changed and that all elderly persons with a chronic cough, with or without sputum, will be subjected to as vigorous examination as a younger person."

In the report of one mass chest X-ray survey of the residents of Erie County, New York, conducted in 1946-1947, it was stated: "The proportion of cases found increases directly with the age of those examined. This statement holds whether one considers the proportion of persons with tentative diagnoses of definite Tuberculosis or the proportion with suspected tuberculosis. The success of a mass case-finding project hinges on ability to induce large numbers of older persons to be examined, though this fact is not widely recognized. The higher the median age of the group examined, the larger will be the number of cases found."

The Problem of Diagnoses

To rely upon the history and physical examination alone to diagnose pulmonary tuberculosis in the aged is not enough. Associated pathological conditions and altered physiological functions incident to advancing age have hindered the proper interpretation of physical signs. Many aged persons cough, expectorate, lose weight and complain of fatigue and weakness: accurate differential diagnostic study is necessary to determine the reasons why.

There are two primary working tools to employ in the diagnosis of pulmonary tuberculosis. The examination of pulmonary discharges, obtained by expectoration or from the fasting stomach by gastric aspiration and the use of the diagnostic chest roentgen-ray film. The film must have such technical qualities that it can be given a proper interpretation by a physician of experience.

The finding of tubercle bacilli in the sputum by either concentration or culture method establishes

the diagnosis of clinically significant tuberculosis. A chest roentgen-ray film may upon occasion give evidence of such diagnostic finality that pulmonary tuberculosis can be said to be present from that evidence alone. Very often, however, the roentgen-ray shadows are regarded only as possible evidence of tuberculous infection and further study of sputum specimens is indicated before a definite diagnosis can be made.

One other working tool of diagnostic aid in tuberculosis is the intracutaneous tuberculin test. If a patient gives no response to 0.005 mg. of purified protein derivative (P.P.D.) or to 0.1 ml. of 1-100 dilution of Old Tuberculin (O.T.), clinically significant tuberculosis is not present. A positive reaction to either of the testing agents means only that tuberculous caseous material is present somewhere in the body.

The Problem of Treatment

In the treatment of tuberculosis in the aged, most authorities agree that proper nourishment and rest are the basic treatment, rest being employed for its effect upon the heart and the body as a whole. There is less agreement upon the advisability of instituting collapse therapy in older persons with tuberculosis.

The Present 1935-1945 Local Study

In the study of patients with pulmonary tuberculosis admitted to Homer Folks Tuberculosis Hospital (Oneonta, New York), it was found that approximately half (51.3 per cent) were classified as "far advanced." Of the patients who were 50 years of age or older at the time of admission, 64.6 per cent were "far advanced." The patients 50 years of age or older represent 17 per cent of those discharged from the hospital.

In the group of patients aged 50 or over, there is a lower percentage of minimal and moderately advanced cases and the percentage of far advanced cases was higher than that found when the entire group of admissions is studied. Among the far advanced cases the ratio of males to females in the older age groups is four to one in this series.

Conclusions

The problem of the older patient with tuberculosis of the lungs can best be solved by prompt diagnosis and immediate isolation from others. Prolonged strict isolation of older aged males is difficult to achieve. However, many in the far advanced group will die in hospital during the first year.

Collapse therapy can and should be employed in the treatment of the more aged patients whenever the indications outweigh the contraindications.

Of 1,329 patients discharged from the Homer Folks Hospital over a nine-year period, 226, or 17 per cent, were 50 years of age or older at the time of admission.

In the group studied, the ratio of males to females 50 years of age or older was 3:1.

Tuberculosis case-finding methods applied to the older age males continue to be indicated.

Problems Presented by Pulmonary Tuberculosis in Patients Over Fifty, Elfred L. Leech, M.D., F.A.C.P., Annals of Int. Med., August, 1950.

SUPPLIED BY

NEW JERSEY TUBERCULOSIS LEAGUE

the medical section of the

NEW JERSEY TRUDEAU SOCIETY

15 East Kinney Street, Newark 2, New Jersey

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET

SITUATIONS, ETC.

$3.00 for 25 words or less: additional words 5c each

CASH MUST ACCOMPANY ORDER

Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY

790 Broad Street, cor. Market

Newark 2, New Jersey MItchell 2-1940—1941

Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

FOR RENT—Spacious consulting room with two treatment rooms. Share waiting room and receptionist with certified internist. Desirable location—lower Clinton Avenue, Newark, N. J. Write Box 12, c/o THE JOURNAL.

FOR SALE—ESTABLISHED OFFICE AND RESIDENCE in excellent locality, one block from hospital. Modern 4-room office suite. Call or write H. S. Kline & Co., Inc., Trenton, N. J.

known and relied on the world over

ADRENALIN

(epinephrine, Parke-Davis) is today, as it has been for many years, one of the most versatile and useful drugs, known and used the world over. Introduced to the medical profession by PARKE-DAVIS in 1901, ADRENALIN is widely used in many conditions — bronchial asthma, serum sickness, the Adams-Stokes syndrome, and anesthesia accidents.

PARKE, DAVIS

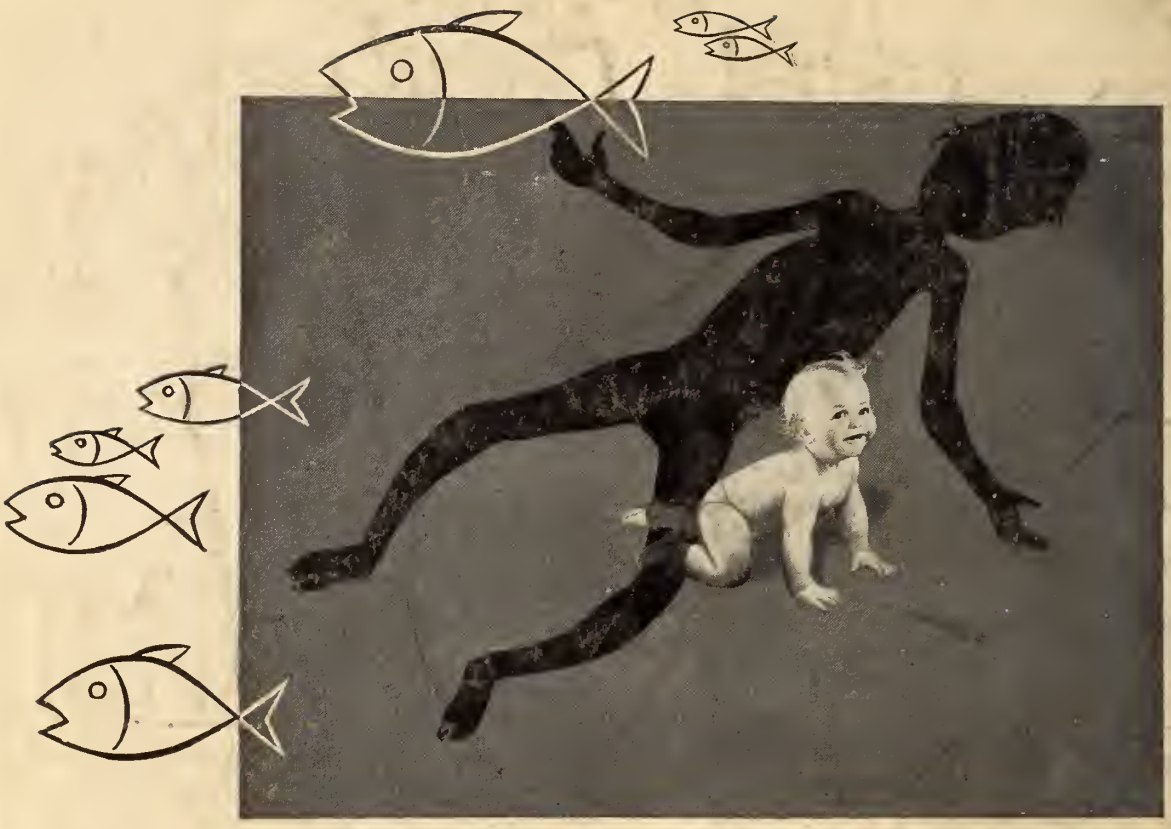
ADRENALIN®

Circulatory stimulant, vasoconstrictor, resuscitant, and hemostatic, this pure crystalline hormone is one of the truly basic drugs — an invaluable aid in office, in hospital, and in clinic. It is an important adjunct in local anesthesia, valuable in arresting superficial hemorrhage, and a standby for decongestion of engorged mucous membranes.

ADRENALIN is available as ADRENALIN CHLORIDE SOLUTION 1:1000, ADRENALIN CHLORIDE SOLUTION 1:100, ADRENALIN IN OIL 1:500 and in a variety of forms to meet all medical and surgical requirements.

OMPANY

MEDICAMENTA VERA · P & CO.



Supplements the sun...
removes the shadow of RICKETS

Rickets may be found in apparently healthy and well nourished infants due to an insufficient intake of vitamin D plus inadequate exposure to ultraviolet rays.

It is now generally accepted that a vitamin D supplement should be given regularly not only to infants but to older children and adolescents. Mead's Oleum Percomorphum With Other Fish Liver Oils and Viosterol is useful for this purpose.

Mead's Oleum Percomorphum

1. Is a highly potent† source of natural vitamins A and D.

2. May be given in drop doses that are easily administered and well tolerated, and is supplied in capsule form also.

3. Has a background of sixteen years of successful clinical use.

†Potency: 60,000 U.S.P. units of vitamin A and 8500 U.S.P. units of vitamin D per gram. Each drop supplies 1250 units of vitamin A and 180 units of vitamin D; each capsule, 5000 units of vitamin A and 700 units of vitamin D.

Supplied in 10 cc. and 50 cc. bottles; and in bottles of 50 and 250 capsules.

ANNUAL MEETING—MAY 14, 15 and 16, 1951—HADDON HALL, ATLANTIC CITY

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 2 FEBRUARY, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 45 to 90

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MEAT...and the PROTEIN NEEDS of the DIABETIC

Not less but *more protein* than the traditional gram per kilo of body weight recommended for the non-diabetic individual promotes an increased sense of well-being in the diabetic patient. Liberal amounts of biologically excellent protein, such as that provided by *meat,* are therefore especially useful in dietotherapy.

For supporting the well-being and vigor of the patient, increasing his resistance to infection, and minimizing many of the degenerative changes common in diabetes mellitus, maintenance of body protein reserves is particularly important.[1,2] The former belief that protein foods, especially meat, engender hypertension and arteriosclerosis, is no longer tenable. On the contrary, deficits in dietary protein are apt to initiate anemia, hypoproteinemia, and retrogressive processes in the kidneys and other organs or tissues.

Ample amounts of high-quality protein foods in the prescribed diet—including generous amounts of meat—are important for maintaining a good nutritional state in the diabetic patient. Such a diet provides the nutritional essentials required in overcoming infections and in prompter healing of traumatic wounds.

Meat, however, is valuable to the patient for more than just its biologically excellent protein. It also furnishes important amounts of iron, thiamine, riboflavin and niacin, and of the newly discovered vitamin B_{12} which, among its several functions, promotes efficient utilization of protein.

---

(1) Mosenthal, H. O.: Management of Diabetes Mellitus: An Analysis of Present-Day Methods of Treatment, Ann. Int. Med., 29:79 (July) 1948.

(2) McLester, J. S.: Nutrition and Diet in Health and Disease, 5th ed., Phil., W. B. Saunders Company, 1949, page 364.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

ACCEPTED COUNCIL ON FOODS AND NUTRITION AMERICAN MEDICAL ASSOCIATION

American Meat Institute

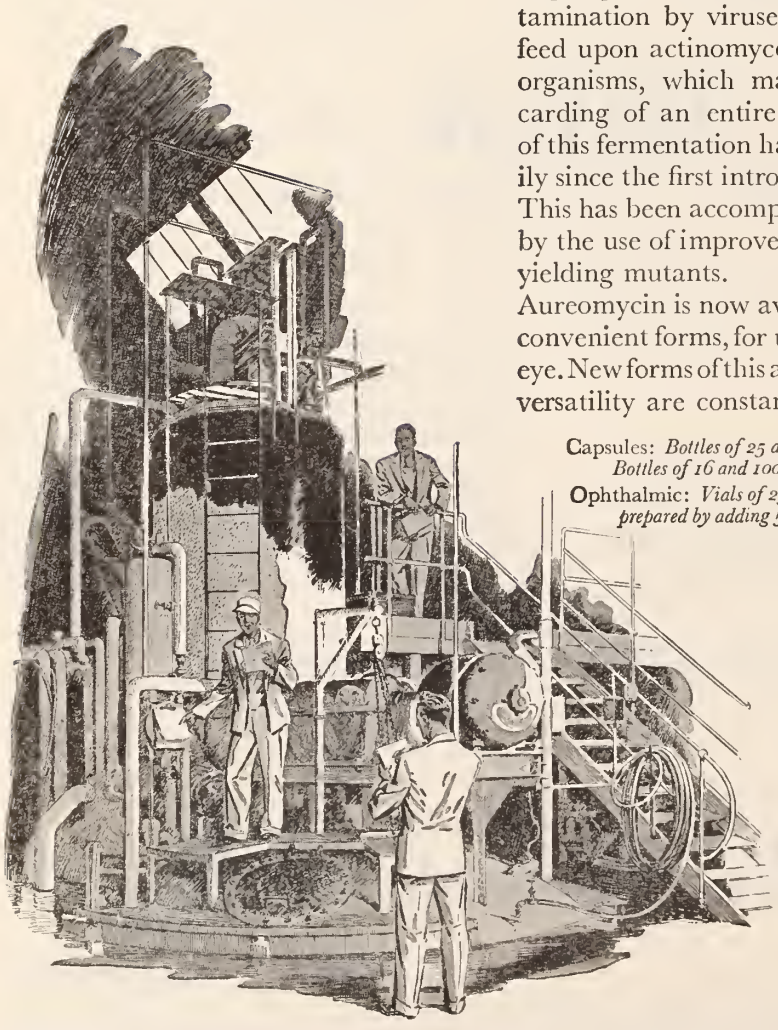
Main Office, Chicago... Members Throughout the United States

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases

AUREOMYCIN

The insatiable demand for aureomycin throughout the world has necessitated not only a tremendous expansion of our production capacity in the United States, but the setting up of highly complex technical organizations in other countries, looking toward eventual universal distribution of this extraordinarily valuable antibiotic. The huge tanks in which the basic fermentations are carried out have a capacity of 20,000 gallons each. Rigid precautions are taken to avoid contamination by viruses (actinophages) which feed upon actinomyces, and by other microorganisms, which may necessitate the discarding of an entire batch. The efficiency of this fermentation has been increased steadily since the first introduction of aureomycin. This has been accomplished for the most part by the use of improved media and of higher-yielding mutants.

Aureomycin is now available in a number of convenient forms, for use by mouth and in the eye. New forms of this antibiotic of unsurpassed versatility are constantly being brought out.

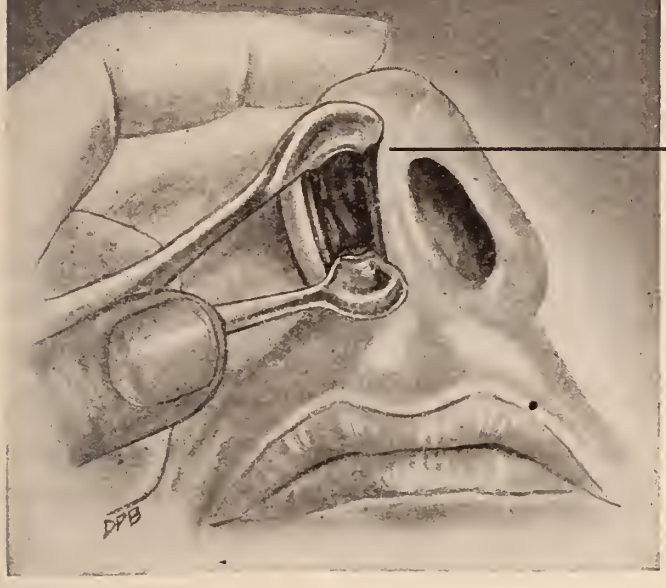


Capsules: *Bottles of 25 and 100, 50 mg. each capsule. Bottles of 16 and 100, 250 mg. each capsule.*

Ophthalmic: *Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.*

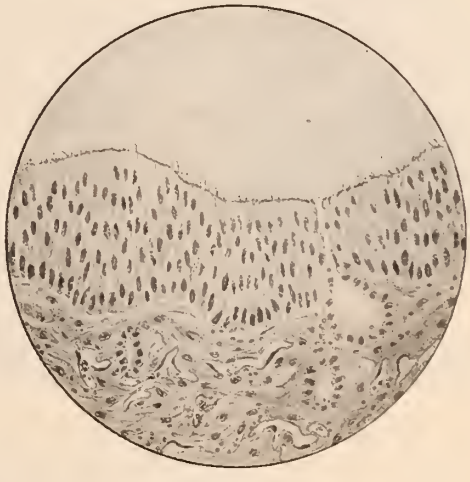
LEDERLE LABORATORIES DIVISION AMERICAN CYANAMID COMPANY 30 Rockefeller Plaza, New York 20, N.Y.

promotes
aeration . . . free drainage
in colds
. . . sinusitis



Nasal membrane showing increased leukocytes with denudation of cilia.

Normal appearing nasal epithelium.



Nasal engorgement and hypersecretion accompanying the common cold and sinusitis are quickly relieved by the vasoconstrictive action of

NEO-SYNEPHRINE®

HYDROCHLORIDE

Brand of Phenylephrine Hydrochloride

The decongestive action of several drops in each nostril usually extends over two to four hours. The effect is undiminished after repeated use.

Relatively nonirritating . . . Virtually no central stimulation.

Supplied in ¼% solution (plain and aromatic), 1 oz. bottles. Also 1% solution (when greater concentration is required), 1 oz. bottles, and ½% water soluble jelly, ⅝ oz. tubes.

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

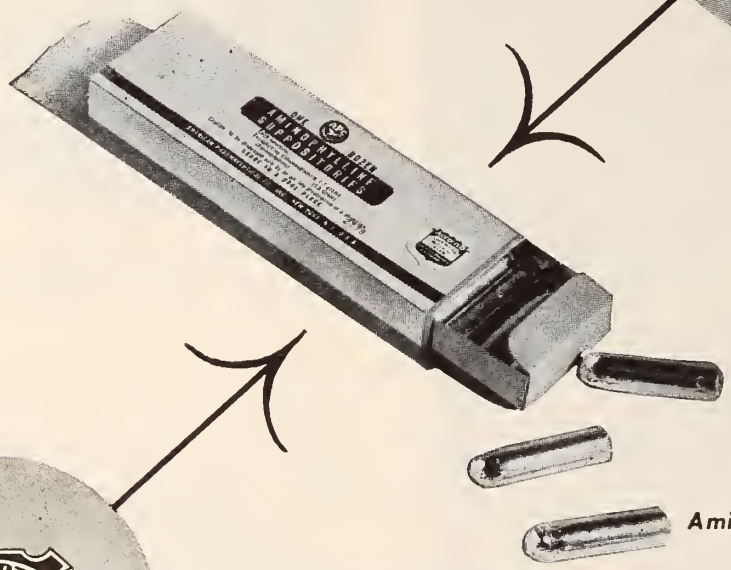
Neo-Synephrine, trademark reg. U. S. & Canada

APc AMINOPHYLLINE SUPPOSITORIES

NEW

CONVENIENT

WIDELY APPLICABLE



Council-Accepted Aminophylline Suppositories, APc now join Council-Accepted Aminophylline Tablets, APc (plain and enteric coated) as convenient, effective, simple adjuncts in the treatment of selected cardio-respiratory conditions.

Now COUNCIL-ACCEPTED

DIURETIC • MYOCARDIAL STIMULANT • BRONCHIAL RELAXANT

AMINOPHYLLINE SUPPOSITORIES, APc

In a non-greasy, water miscible base • Useful in mild to moderate bronchial asthma; adjunctal to oral or intravenous aminophylline in all indications; for nocturnal relief; where intravenous therapy is undesirable or not available. Bronchial relaxation is fairly rapid, almost as complete as intravenous therapy.

AMINOPHYLLINE TABLETS, APc

ENTERIC COATED

Pass through stomach without causing local irritation or gastric distress due to special enteric coating. Readily disintegrate in the intestinal tract. Indicated in bronchial asthma (particularly epinephrine-fast), pulmonary or cardiorenal edema, paroxysmal dyspnea, and Cheyne-Stokes respiration.

SUPPLIED: Suppositories, APc 7½ gr., boxes of 12.
Enteric coated tablets, 1½ and 3 gr., bottles of 100, 1000, 5000
Uncoated tablets, 1½ and 3 gr., bottles of 100, 1000, and 5000

Please specify suppositories or tablets on sample request.

AMERICAN PHARMACEUTICAL COMPANY

MANUFACTURING CHEMISTS • NEW YORK 18, N. Y.

Over 30 years of service to the profession.

Nothing Competes with the Lure of Sweets

Use it in Sulfonamide Therapy

Tasty Suspension with "Built-In" Alkalinizer

Palatable, orange-flavored DUOZINE Suspension provides, per teaspoonful, 0.15 Gm. each sulfodiazine and sulfomerazine, plus 1.5 Gm. sodium citrate. It's especially good-tasting when diluted in water or fruit juice. In 1-pint bottles.

YOU'LL pave the way for successful sulfonamide therapy when you appeal to small fry with candy-like, good-looking DUOZINE *Dulcet* Tablets. These medicated cubes not only taste but look like a treat—there's nothing about them to remind children of medicine.

But here disguised is a stable, uniformly potent sulfadiazine-sulfamerazine combination (equal parts). These drugs, according to a recent report[1], " . . . qualify at present for first and second place, respectively, as components of any mixture."

With DUOZINE *Dulcet* Tablets, mother can administer accurate dosage merely by counting out the prescribed number of tablets. Dosage can also be readily adjusted to adult needs, and you'll find many grown-ups who prefer this tasty medication to ordinary tablets.

The next time sulfonamides are indicated why not combine treat and treatment? DUOZINE *Dulcet* Tablets in 0.3-Gm. and 0.15-Gm. potencies, bottles of 100. Abbott

1. LEHR, D. (1950), RELATIVE MERITS OF COMMONLY USED SULFONAMIDE DRUGS AS COMPONENTS OF MIXTURES, N. Y. STATE J. MED., 50:1361, JUNE.

Specify Duozine® TRADE MARK Dulcet® Tablets

(SULFADIAZINE-SULFAMERAZINE COMBINED, ABBOTT)

®MEDICATED SUGAR TABLETS, ABBOTT

How mild can a cigarette be?

● Every day, more and more smokers—and among them many, many doctors—are discovering for themselves just how mild a cigarette can be. They're making their own 30-Day Camel Mildness Tests—smoking Camels regularly for 30 days.

It's a sensible cigarette test. As a doctor, you know there can be no valid conclusion drawn from a one puff comparison—from a trick test that calls for hasty decisions. The Camel 30-Day Test asks you to make a day after day, pack after pack comparison.

If you are not already a Camel smoker, why not try this test? Judge Camel mildness and the rich, full flavor of Camel's choice tobaccos in your own "T-Zone"—the real proving ground for a cigarette. See if the Camel 30-Day Test doesn't give you the most enjoyment you've ever had from smoking!

Make your own 30-Day Camel Mildness Test in your own "T-Zone"— That's T for Throat, T for Taste. See if you don't change to Camels for keeps!

R. J. Reynolds Tobacco Company
Winston-Salem, North Carolina

More People smoke Camels THAN ANY OTHER CIGARETTE!

CAMP Scientific Support Fitting Courses stress the importance not only of theory but also the practical application of knowledge in clinical "workshops." Above is shown a group of fitters being instructed in the practical fitting of a patient (pendulous figure type) with a Camp orthopedic back brace.

A BASIC CAMP CREDO

"Education before Sales"

"How skilled is the fitter who assumes the duty of carrying out my instructions when I prescribe a scientific support?"

Camp Scientific Supports are sold and fitted in reputable stores in your community.

Every physician is justified in asking that question.

This year will mark the 23rd annual series of Camp Scientific Support Fitting Courses under medical supervision. Beginning in New York City, they will be held in principal cities throughout the nation. Estimated enrollment will include over a thousand representatives from reliable stores in all parts of the country. These courses are conducted by our Training Director, Medical Director, Designer and a staff of registered nurses. In addition to the formal sessions the nurses are constantly instructing smaller groups and individuals in countless other cities.

Since 1929 we have trained more than 16,000 fitters in the United States and Canada. That is why Camp research, Camp design and Camp craftsmanship can provide the ultimate in service to the patient.

S. H. CAMP and COMPANY, JACKSON, MICHIGAN

World's Largest Manufacturers of Scientific Supports

Offices in New York • Chicago • Windsor, Ontario • London, England

All Children Can Benefit from *this Hot Drink at Breakfast*

The problem of encouraging children to eat an adequate breakfast finds easier solution when Ovaltine in hot milk is recommended as a breakfast beverage. Many children clamor for a hot drink at the morning meal and Hot Ovaltine is the right kind of drink to recommend.

A cup of Hot Ovaltine makes an excellent contribution of virtually all essential nutrients, adding substantially to the nutritional start for the day. It also serves in a gustatory capacity by enhancing the appeal of breakfast and making other foods more inviting.

The nutrient contribution made by a cup of Ovaltine is apparent from the table below. Note the wealth of essentials added to the nutritional intake by making the simple recommendation of adding a cup of Hot Ovaltine to the child's breakfast.

THE WANDER COMPANY, 360 N. MICHIGAN AVE., CHICAGO 1, ILLINOIS

Ovaltine

Here ore the nutrients that a cupful of hot Ovoltine, made of ½ oz. of Ovoltine ond 8 fl. oz. of whole milk,* provides:

PROTEIN	10.5 Gm.	IRON	4 mg.	NIACIN	2.3 mg.
FAT	10 5 Gm.	COPPER	0.2 mg.	VITAMIN C	10 mg.
CARBOHYDRATE	22 Gm.	VITAMIN A	1000 I.U.	VITAMIN D	140 I.U.
CALCIUM	370 mg.	VITAMIN B_1	0.39 mg.	CALORIES	225
PHOSPHORUS	315 mg.	RIBOFLAVIN	0.7 mg.		

*Based on average reported values for milk.

Do your patients know how to use the Banana Powder you prescribe?

To help your patients use banana powder most efficiently when you prescribe high-carbohydrate, low protein and bland diets, a booklet of directions and recipes has been prepared for MELORIPE BANANA POWDER. Many physicians have found this booklet of great service to their patients in the preparation of proper diets for use in celiac disease, infant diarrhea, adult diarrhea and certain forms of dysentery, as well as for normal feeding where a highly nutritional formula with a very pleasing flavor is desired.

These booklets are available for physicians in limited quantity. Use the coupon below or write us requesting the number of booklets you need for your patients.

Easy to follow recipes in the booklet

Directions for preparing liquid diet (bottle feeding) and thick feeding as well as the following appetite-tempting recipes made with Meloripe Banana Powder are included in this helpful booklet . . .

Banana Whip
Banana Milk Shake
Banana Gelatin Whip
Banana Applesauce
Banana Custard
Banana Fruit Sauce
Banana Rice Pudding

Food Concentrates, Inc.
P. O. Box 71
Rahway, N. J.

Please send me _____ FREE copies of your booklet on MELORIPE BANANA POWDER.

Name _____

Address _____

City _____

State _____

specific

for the

menopause

ESTINYL®

(Ethinyl Estradiol)

ESTINYL

is ethinyl estradiol, a derivative of natural follicular hormone.

ESTINYL . . .

Relieves symptoms rapidly—within 3 days in some patients

Provides a "real lift"—a characteristic of estrogens derived from natural sources

Is simply administered—One tablet daily for most patients

Is economical—cost is within means of all requiring it.

Schering CORPORATION · BLOOMFIELD, NEW JERSEY

ESTINYL

SCHERING

VOLUME 48
NUMBER 2

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 558

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month

VOL. 48, No. 2 FEBRUARY, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE
DOCTORS, DUTY, AND DEDICATION

Elsewhere in this issue* we publish a letter protesting our Society's physician resources program. The writer's grievance seems to be three-fold. First, he denies that failure to fill out the questionnaire is a disservice to the doctor himself. Second, he says that Public Law 779 (the "doctor-draft" law) is discriminatory. Third, he charges that the chairman of our physician resources committee is "a tool for the purpose of regimenting physicians. . . so that it will be easier to socialize medicine under guise of emergency".

These are serious charges. In spite of the truculent tone of the letter, they are apparently made in good faith and deserve an answer. Let us consider them.

The questionnaire affords space for data which might justify deferment. For example, a physician is plant doctor for a factory manufacturing munitions. Your Society, of course, does not know this without the doctor so informing us. If the doctor submitted his questionnaire he would indicate it. If he submitted no questionnaire, then we would know of nothing to justify deferment and would be forced to rely upon information obtained from other sources, especially the local advisory committee. Actually, Dr. Herrman's committee has recommended more deferments than it has reported availabilities.

The constitutionality of Public Law 779 is something we cannot adjudicate. So long as it remains on the statute books, it is the law of the land and we must obey it. Of course it *is* discriminatory. We doctors enjoy considerable discrimination in our favor—any honest physician can list these for himself. Are we to accept smugly all these perquisites but cry "discrimination" when a cognate duty is imposed? We ask our unhappy correspondent just how *he* would obtain medical officers if too few volunteered. Would

*See page 80, this JOURNAL.

he recall those doctors who already had had foreign service, and whose commissions perforce had not yet expired? Or just let the soldiers go without medical attention? If he can think of a fairer way of obtaining the needed medical officers, we would welcome hearing about it.

Must doctors' children be deprived of their fathers because the latter are physicians? Sometimes, yes. If a physician is enjoying the companionship of his children one evening and a call comes that there has been a wreck at the railway yards, he will have to abandon the children and go on duty. The clerk across the street can continue to wallow in domesticity. If a man is unwilling to have his private life disrupted by duty, then he should never become a doctor. Ninety-four per cent of army and navy personnel are *not* physicians. They too have children. More than 96 per cent of those in combat are *not* physicians. Their children stand a good chance of permanently losing their fathers. Perhaps our correspondent can never understand this, but who-ever takes the Hippocratic oath dedicates himself to public service. Just a sweet sentiment is it? Well, when the chips are down, it leaps into life as a tough reality. We expect a fireman to accept interruption of private life as part of a duty. Are doctors less courageous than firemen? At considerable cost, society educated the doctor. No matter how much tuition fee you paid, you got a bargain. Society made up the deficit. In return society expects you to be on call for emergencies. Such is the covenant we make when we become doctors.

The fear that regimentation will lead to socialization is the strangest charge of the lot. We are faced with an emergency in which survival rather than victory is the immediate, urgent goal. We still have a free system of medical practice. If through this system we can furnish the doctors so desperately needed, we have a strong argument in support of our system. But the people simply will not stand being deprived of medical care for troops if under our individualized system every physician can decide to stay home when the going gets tough. This is our chance to show that under a free system we can police our own profession.

Aldrich C. Crowe, M.D.

OUR NEW EXECUTIVE OFFICER

Richard I. Nevin of Jersey City has been appointed Executive Officer of The Medical Society of New Jersey.

Mr. Nevin is a graduate of Fordham University, class of 1929 and has done graduate work at Columbia University. He became an instructor at St. Peter's College, Jersey City, in 1931 and is presently Professor of Public Speaking and English at the same institution. He has served as Registrar of the college and Director of Public Relations.

During World War II he served as coordinator of the college program for nurses' training and later as coordinator of the program of graduate medical studies given at the college in conjunction with the Hudson County Medical Society.

Mr. Nevin will function as our Society's liaison with lay organizations, both governmental and private, and as a coordinator between our state society and its component county units. He is an accomplished public speaker and is well remembered for the inspiring Elias J. Marsh Oration which he delivered at the Fall Clinical Conference of the Society in 1949.

ORIGINAL ARTICLES

CONGENITAL HEART DISEASE. II.

ANGIOCARDIOGRAPHY, AORTOGRAPHY AND CARDIAC CATHETERIZATION *

DANIEL F. DOWNING, M.D., NICHOLAS A. ANTONIUS, M.D.,
SOL PARENT, M.D., HENRY GREEN, M.D., ALLEN WELKIND, M.D.,
and FRANCIS P. CARRIGAN, M.D., Newark, N. J.

The extraordinary measures for definite diagnosis of congenital heart lesions are angiocardiography, aortography and cardiac catheterization. These procedures are relatively safe in experienced hands and of inestimable value to the patient, the internist, the surgeon and the research physiologist. Without them, surgery could not be contemplated in many cases in which it would otherwise be possible. Often, they indicate that surgery would be ineffective or lethal in cases which, by other criteria, appear remediable.

ANGIOCARDIOGRAPHY

To Forssman[1] is given the credit for the first attempt at the roentgen visualization of the right heart chambers by means of injection into the circulation of radiopaque dye. Several foreign investigators[2] adopted the procedure, but it was not until Robb and Steinberg[3] reported its use in 123 subjects that its possibilities began to be fully explored. Since that time the indications and contra-indications, the values and limitations of the procedure have come to take definite form. Technical advances have been many. Several devices for rapid serial roentgenography have been produced, some ingeniously simple and of reasonable cost, others complex and expensive.

Preparation of the patient: The preparation of the patient consists only in the deprivation of food and fluid for three or four hours before the examination. Local anesthesia at the site of the cut-down is used in all cases. For infants we have used various types of sedation and/or general anesthesia. Tribromethanol[4] has been found satisfactory, but we prefer open-drop ether, the apparatus being removed and the fumes blown from the room before exposures are made. For cooperative older patients, local anesthesia suffices. If an older patient proves to be uncooperative and struggles during the cut-down, the procedure is terminated and rescheduled for anesthesia at another time.

The procedure consists of the introduction of a radiopaque dye (our preference is 70 per cent Diodrast[5]) into a peripheral vein or directly into the heart and the exposure of serial roentgen films during the period of its circulation through the heart. In patients with vessels of adequate size (patients above one year of age) we use the median basilic vein in the antecubital space. An incision is made over the vein and a 15 to 20 millimeter segment of the vessel is freed from surrounding tissue. Two ties, proximal and distal are looped around the vein. The distal is tied if the vessel is large; if it is small we prefer to leave it untied so that the incision in the wall can be easily recognized by allowing it to bleed. An incision, transverse or vertical, is now made in the vessel so that the intima is exposed. An ordinary intravenous needle, the entire point of which has been filed off, of the largest possible caliber, is then inserted almost its entire length. The proximal ligature is tied so that the vein is snug about the needle. A test dose of Diodrast,[5] (0.2 to 1.5 cubic centimeters depending on age) is injected. A syringe filled with normal saline is then attached to the needle, and while the patient is being properly positioned the saline is slowly injected to keep the cannula patena. If after 10 or 15 minutes there has been no untoward reaction to the test dose, the proper amount of dye (8 to 10 cubic centimeters for infants under 3 months; 10 cubic centimeters from 3 months to 1 year; 15 from 1 to 2 years; 20 to 25 from 2 to 12; 30 to 40 from 12 to 16, and 40 to 50 for adults) is drawn into a syringe with an outflow lumen of large diameter (Robb) and injected rapidly. If the syringe is grasped firmly in one hand and the

* From the Sections on Cardiology, Pediatrics and Thoracic Surgery, St. Michael's Hospital, Newark, N. J., and the Division of Pediatrics and the Department of Thoracic Surgery, Hahnemann Medical College, Philadelphia, Pa.

1. Forssman, W.: Die Sondierarrung der rechten Herzens. Klin. Wchuscher, 8:2085 (1929).
2. Egas Moniz, Lapo de Carvalho, Almeida Lima; Angiopneumographic Presse Med., 39:996 (1931); and Conte, E., Costa, A.: Angiopneumography. Radiology, 21:461 (1933); and Castellanos, A., Perieras, R., Aorcia, A.: L'angiocardiographic chez l'enfant Presse Med., 80:25 (1938); and de las Reyes, Perez, Castellanos, A., Pereiras, R.: Angiocardiography, its Value. Am. Heart Journal, 25:298 (1943).
3. Robb, G. P., Steinberg, I.: A practical method of visualization of the heart, the pulmonary circulation and the great blood vessels in man. Jour. Clin. Invest., 17:507 (1938).
4. Distributed by Winthrop-Stearns, Inc., under the trade-name of Avertin.
5. Diodrast is trade-marked by Winthrop-Stearns, Inc.

plunger pushed in forcibly with the palm of the other, the speed of injection is greatest. No longer than one second should be consumed. Just before the last portion of the dye leaves the syringe, exposure of films begins, the number being dependent upon the type of apparatus in use. It is usually wise to position the patient for R.P.O. views first, as they tend to be more truly diagnostic. If there has been no reaction to the first injection, the procedure is repeated in the A.P. position. Using a simple manual cassette changer, six exposures can be made within ten seconds. This number is usually sufficient for diagnostic purposes.

Latterly, our technic for small infants has differed from that outlined above. We found that uniformly satisfactory results were not obtained in patients of this size because of the slowness of injection necessitated by the small caliber of the peripheral arm veins. It is now our practice to expose and prepare the external jugular vein and to insert a special plastic catheter, designed for aortography. Under fluoroscopy the tip is advanced until it lies in the superior vena cava at or near its entrance into the right auricle. The injection is made through the catheter, 5 cubic centimeters of dye being used, and exposures made from the beginning of the injection. In some cases it is necessary to use the femoral vein for catheterization, but this should be avoided whenever possible because of the danger of thrombosis and embolism.

Severe reactions to the dye are rare. The usual subjective response in unanesthetized patients consists of a feeling of mild to intense heat spreading throughout the body from the chest. Objectively there is a brief pin-point contraction of the pupils followed by dilation, a mild rise or fall in blood pressure and a rise in pulse rate. Young patients often have a spontaneous bowel movement. A single cough may signal the arrival of dye in the pulmonary bed. Irregularities in respiration occur transiently in a large number of subjects. Fatal reactions to the study have occurred in a small proportion of patients. The mechanism of death is not clear. There is evidence[6] that cerebral vascular[7] or pulmonary factors[8] are of greatest importance.

Angiocardiography is indicated in patients who have a right-to-left shunt of blood: the cyanotic group. Although some authorities say that clinical examination, electrocardiography and x-ray and fluoroscopy are sufficient for pre-operative diagnosis in most cases of cyanotic congenital heart disease, it is becoming more and more apparent that contrast study in all cases would prevent many needless or hopeless operations. The cyanotic patient whose chest is opened and who is then found to be inoperable has a much greater chance of an operative death than the one in whom a corrective procedure can be carried out. Particularly in infants is angiocardiographic study desirable. If done shortly after birth, an anatomic diagnosis can be made, and, if the condition is operable surgical intervention is immediately possible should the patient show signs of impending failure. If the diagnosis is not confirmed when the infant is in relatively good condition the only opportunity may have been lost. Later, when disaster is imminent, the surgeon is faced with the problem of operating in the face of ignorance as to the exact nature of the lesion. He may explore and find remediable surgery impossible. Such exploration carries with it an immediate mortality of 50 per cent.

The procedure is contra-indicated in those who have severe renal disease, who have liver damage, who are sensitive to iodine compounds or who are in such poor general condition that even this study would appear to be lethal.

THORACIC AORTOGRAPHY

With the development of a procedure for contrast study of the venous side of the circulation, it was natural that efforts would be made toward similar delineation of the arterial circulation. Levo-angiocardiograms (the outlining of the left heart chamber and aorta by dye which has made the circuit of the lungs in the procedure described above) are so often unsatisfactory, particularly in older individuals, that a method was sought of injecting the dye directly into the aorta. Several methods have been devised: retrograde injection of the dye into the carotids, precutaneous injection directly into the aorta, and delivery of the dye via a catheter introduced into the aorta. The latter method is used by us, the technic having been developed by Dr. J. Stauffer Lehman.

A specially woven, non-wettable catheter of

6. Dotter, C. T., Jackson, F. S.: Death Following Angiocardiograhy. Radiology, 54:527 (1950).
7. Broman, T., Olsson, O.: The tolerance of cerebral blood vessels to a contrast medium of the Diodrast group. Acta Radiology, 30:326 (1948).
8. Broman, T., Olsson, O.: Experimental study of contrast media for cerebral angiocardiography with reference to possible injurious effects on the cerebral blood vessels. Acta Radiol., 31:321 (1949).

large lumen is introduced through the axillary vein and guided under fluoroscopy until the tip is situated immediately above the aortic valve. With the patient in an exaggerated right posterior oblique position the dye is injected and a single film exposed just as the last portion of the dye is being expelled. By this technic the entire thoracic aorta and its branches are opacified. The coronary arteries are usually beautifully visualized.

The procedure is of value in several conditions. If coarctation of the aorta has been diagnosed by clinical methods, thoracic aortography gives the surgeon accurate knowledge as to the extent of the resection which will be necessary. If the segment is long he may then provide himself with a suitable graft beforehand. More and more often clinicians are plagued with the problem of differentiating between a patent ductus arteriosus and an aortic septal defect—a communication between aorta and pulmonary artery immediately above the valves. Thoracic aortography enables the differentiation to be made and might save the patient from a hazardous exploration. Again, in some patients with signs of cardiac strain and only a systolic murmur in the second left interspace, thoracic aortography may give the additional necessary evidence of the presence of a patent ductus arteriosus. The procedure is of great value in differentiating aortic aneurysms from other mediastinal masses.

The reactions are the same as those seen in angiocardiography. A smaller amount of dye is necessary, however, and in most cases there is little discomfort.

CARDIAC CATHETERIZATION

Bleichroeder[9] is credited with the first cardiac catheterization. Forssman[1] performed the procedure on himself, unaware of the fact that it had already been done previously. Cournand and his group in this country developed the measure into an instrument of great value in the study of normal and pathologic physiology.

The catheter in general use is a non-wettable instrument one meter long. There is a single opening at one end and the distal 5 centimeters form a curve. It is thin-walled so that the largest possible inside diameter is available. The catheter is introduced through the right or left median basilic vein in the antecubital space and guided under fluoroscopic control to the heart. The curved tip enables one to determine the course by manipulation of the external portion. Successive blood samples for oxygen determination are taken from, and pressure studies recorded in the pulmonary artery and its branches, the right ventricle, the right auricle, the superior vena cava and whatever abnormal positions are encountered. Spot films are exposed each time a sample is taken so that the course can be accurately checked. Before the procedure, an indwelling needle is placed in the radial or femoral artery and blood samples are taken from here at the same time they are taken from the right ventricle.

The procedure may be done at any age. Below age 10, it is wise to use general anesthesia unless the patient is extraordinarily cooperative. Over age ten, local analgesia usually suffices. In infants the veins of the arms are too small to admit a catheter of suitable size. In such cases, the external jugular should be used if possible; if not, the femoral, although there is a greater risk of thrombosis.

Representative findings in certain congenital defects follow:

Patent ductus arteriosus. Normally the oxygen content of blood in the right ventricle and pulmonary artery should agree within 0.5 volume per cent. If that in the pulmonary artery is significantly greater, a shunt from aorta to pulmonary artery is probable. Commonly, the shunt will be due to a ductus but such defects as one in the aortic septum or in the membranous portion of the interventricular septum must be considered. On occasion, the catheter will pass through the ductus into the descending aorta, giving direct evidence of its presence.

Interventricular septal defect. If the defect is large, the catheter may pass through into the left ventricle. Usually one must rely for diagnosis on finding a significantly greater oxygen content in the ventricle than in the auricle. Multiple samples of blood must be taken from the two chambers as a single sample from either may be misleading due to incomplete mixture. If one is fortunate a sample may be withdrawn from the immediate area of the defect.

Interauricular septal defect. The catheter may pass through the defect. If it does not, one may judge an auricular septal defect to be present if the oxygen content is higher in the auricle than in

9. Bleichroeder, F.: Berl. Klin. Wchuscher., 49:1503 (1912).

the vena cava. To be ruled out are anomalous drainage of pulmonary veins into the right auricle and reflex of blood from the right ventricle in the presence of an interventricular septal defect.

Pulmonary stenosis. If the catheter passes through the stenosed valve, the pressure in the pulmonary artery will be significantly lower than that in the right ventricle.

Tetralogy of Fallot. The catheter may pass through into the overriding aorta. As in "pure" pulmonary stenosis, there will be lower pressure in the pulmonary artery than in the right ventricle. If the overriding of the aorta is extreme, right ventricular pressure will approach the systemic.

Tricuspid atresia. Right auricular pressure is elevated. The catheter may go through the auricular septal defect into the left auricle and left ventricle. In spite of manipulation it is not seen to enter the normal position of the right ventricle.

Defect		Oxygen-content cc/liter	Pressure
Auricular septal defect	SVC	115	.....
	RA	178	.....
	RV	132	85/0
Ventricular septal defect	SVC	133	.....
	RA	131	15
	RV	162	100/15
	PA	160	.....
Tetralogy of Fallot	RA	190	9
	RV	200	140/90
	PA	198	18/8
Patent ductus arteriosus	SVC	98	.....
	RV	102	.....
	RV	103	48/18
	PA	137	48/30

Oxygen content and pressures obtained by catheterization in four types of defect.

In general, cardiac catheterization is of greater value in acyanotic lesions than in cyanotic. Because the shunt is from left to right oxygen studies and pressure are of value whereas angiocardiography would usually demonstrate little or nothing.

Dangers of the procedure are few. Rarely thrombosis (venous or intracardiac) is said to occur. There is a theoretical danger of embolization if there is a right to left shunt. Disturbances in rhythm are common. Premature contractions are usually seen, occasionally ventricular tachycardia. With change in position of the catheter these cease.

Contra-indications include: spontaneous ventricular premature beats, chronic auricular fibrillation, recent coronary thrombosis, subacute bacterial endocarditis. In our experience, no untoward effects have resulted from catheterization in the presence of chronic auricular fibrillation, but it should be generally regarded as a contra-indication.

SUMMARY

Angiocardiography is a valuable diagnostic tool in cyanotic congenital cardiac lesions. It probably should be used in all cases. Thoracic aortography gives valuable information concerning lesions of the great vessels. Cardiac catheterization is of particular value in those acyanotic lesions in which there is a left to right shunt.

306 High Street, Newark
230 N. Broad Street, Philadelphia

SURGICAL SESSION IN PHILADELPHIA

An invitation is extended to physicians in New Jersey to attend a three-day sectional meeting of the American College of Surgeons in Philadelphia on March 5, 6 and 7. The Bellevue-Stratford will be headquarters for the meeting. Requests for hotel accommodations should be directed to the Philadelphia Convention Bureau, 17th and Sansom Streets, Philadelphia 3.

The program will include new surgical motion pictures, a cancer symposium, and panels on vascular surgery, chest injuries, fractures about the ankle joint, anesthesia problems in poor risk patients, neck surgery, gastric surgery, cancer of the colon and emergencies arising during operation. A special program on trauma and diagnosis of acute conditions of the abdomen has also been prepared for general practitioners. The first two days will be at the headquarters hotel. On March 7 the hospitals in Philadelphia will offer a full day of surgical clinics.

A five-dollar registration fee will be required, except from Fellows and members of the candidate groups of the College, and interns and residents. The physician in practice will find the program worth many times the registration fee.

OBSTRUCTION TO NASAL BREATHING CAUSED BY ENLARGED PLICAE

ERNEST REEVES, M.D., Passaic, N. J.

During normal respiration the air passes through the nose and choanae into the rhinopharynx then to the larynx. Therefore any abnormally large formation in the epipharynx may obstruct nasal breathing. The mucosa form three folds around the tubal ostium. (1) The *plica salpingopharyngea* originates on the posterior lip of the tubal torus and (going downwards) ends on the pharyngeal wall. The (2) *plica salpingopalatina* and (3) *plica salpingonasalis* start from the anterior lip of the eustachian tube. The salpingopalatine folds are directed downward and towards the midline on the soft palate. In most children the fornix of pharynx is at the same level as the lower turbinate and the tubal opening at the level of the palate. Therefore the plica salpingopalatina is skirting the base of the choanae. The plica salpingonasalis goes upwards from its starting point on the tubal opening, very near to the lateral and upper border of the choanae ending near the nasal septum. The two folds often unite to form a continuous arc around the choanae. Any enlargement of these folds therefore encroaches on the choanae and interfere with nasal breathing. The two cases described here demonstrate this fact very clearly.

CASE ONE

A 12 year old boy had had tonsils and adenoids removed 7 years ago. As far as the mother remembered, the child had been a mouth breather all his life. The adenoidectomy did *not* relieve the obstruction to nasal breathing. The child continued to sleep very restlessly with open mouth. His hearing started to deteriorate, and he could hear only loud conversation. He received "radium treatments" two years ago, administered by a competent specialist. These did not bring relief. During office examination, even without anesthesia, two tremendous folds could be seen jutting out from behind the elevated palate. These folds tended to meet in the midline during gagging. He had obstruction to nasal breathing caused by hyperplasia of the salpingopalatine folds. After anesthesia, I elevated the soft palate with a Love retractor and saw that the residual adenoid tissue was small, weighing only 0.75 Grams. But on both sides there were very strong mucosal folds. I introduced the eustachian catheter into the tube and found that they were situated anterior to it. Downward, they continued on the posterior surface of the soft palate, first towards the midline and then arcing down towards the pharynx.

The folds continued above the eustachian tubes too, so that the salpingonasal and salpingopalatine folds united to form one continuous arc. The upper part of the arc was 12 millimeters on the right side and eleven on the left. The lower part of the fold was 10 millimeters on each side. Since his pharynx measured only 23 millimeters in the upper part, the two folds closed the pharynx completely. The tubal opening was hidden behind the folds.

The folds were removed by a No. 2 tonsil punch piecemeal. They weighed 1.1 Grams. Histologic examination showed accumulation of lymphocytes and glands but nothing really different from normal adenoid tissue. Following the operation the child was able to breathe through his nose without difficulty. His hearing improved remarkably. It seems likely that the hearing difficulty was due to the fact that these big plicae prevented aeration of the middle ear through the tube.

CASE TWO

Tonsils and adenoids had been satisfactorily removed in a 3-year old boy. I saw him when he was 6 years old. According to his mother, neither before nor after adenoidectomy could the child breathe through his nose. Office examination revealed a fold visible on each side of the pharynx; this was accentuated by spontaneous elevation of the palate while the tongue was being depressed.

During the operation, these folds were seen to originate behind the tubal ostium and to continue downward onto the posterior pharyngeal wall. Thus they were hypertrophied salpingopharyngeal folds. Above they were 13 millimeters wide and at the level of the base of the uvula, 9 millimeters wide. They were removed by tonsil punch. The removed tissue weighed 1½ Grams. The salpingopalatine fold was clearly visible anterior to the above described plica. It was relatively small and was not removed. After operation the child had no difficulty in nasal respiration.

I have often found that after well performed adenoidectomy, the nasal breathing was *not* restored. Subsequent radium treatment did not bring the desired results either. Cases similar to the above described may partly explain these failures.

195 Lexington Avenue

DICUMAROL[1] THERAPY[2]

SHEPARD SHAPIRO, M.D., and MURRAY WEINER, M.D., New York

Experience with Dicumarol[1] since its introduction into clinical medicine almost a decade ago has demonstrated beyond reasonable doubt that, when properly administered, it can prevent or favorably influence the course of thrombo-embolic disease.

All anticoagulants carry the danger of bleeding, particularly if their administration is inadequately controlled. In the therapeutic application of the *in-vivo* clotting inhibitors one seeks to induce a state of hypocoagulability of the blood sufficient to be therapeutically effective but free as possible of the hazard of hemorrhage. This problem is currently being attacked from two directions:

1. A comprehension of the fate of Dicumarol[1] in the body, and of the factors influencing the physiologic response to the drug.
2. A search for more reliable anticoagulant drugs.

Dicumarol[1] dosage has been a difficult problem ever since the drug was first used. Its effects may be delayed and unpredictable in duration and intensity. The development of a method for determining the concentration of Dicumarol[1] in plasma and other biologic materials has made it possible to study the absorption, excretion, rate of transformation, and tissue disposition of the drug. With this newer knowledge, it has been possible to investigate more adequately the rationale behind the various regimens of Dicumarol[1] administration which have been used clinically.

For most drugs, the ideal method of administration is that which achieves and maintains a safe and effective concentration in the body. With Dicumarol,[1] however, experience has taught that the daily dose which will be safe and effective over an extended period rarely can be predicted. Only by following carefully the prothrombin time response is it possible for the clinician to determine the Dicumarol[1] requirement necessary to achieve the desired level of hypoprothrombinemia in each patient.

Physiologic studies by the authors[3] have yielded the following facts which have been found helpful in outlining a rational schema for Dicumarol[1] dosage:

1. The drug may be absorbed slowly from the gastro-intestinal tract. In some instances, maximum plasma concentrations following single oral doses may not be achieved for more than 24 hours.
2. Absorption may be incomplete. From 0 to more than 40 per cent of single oral doses may be eliminated in the stool.
3. The drug is *not* excreted in the urine.
4. Dicumarol[1] is metabolized in the body at a slow rate. This rate varies considerably with the individual and the dose. Larger doses are transformed at a relatively slower rate. Plasma levels may fall as slowly as 15 per cent per day or more rapidly than 50 per cent per day. Subjects in a stable metabolic state tend to transform the drug in a consistent manner.
5. The drug is widely distributed in most tissues. Repeating a dose while Dicumarol[1] is still present in the body results in an increment of plasma concentration greater than the maximum concentration achieved by that dose initially.
6. There is a threshold level of Dicumarol[1] in plasma which must be achieved before the prothrombin time becomes prolonged. This level varies significantly in different persons.
7. There is considerable individual variation in the "sensitivity" of the prothrombin mechanism to a given concentration of Dicumarol[1] in plasma. Levels which result in dangerously high prothrombin times in one subject, may be inadequate to induce hypoprothrombinemia in others.
8. The pattern of the prothrombin curve is roughly parallel to, and one or two days later than, the curve of the plasma Dicumarol[1] concentration. In some sensitive individuals the prothrombin time may remain elevated for days after the Dicumarol[1] has disappeared from the plasma.
9. Large doses of water-soluble preparations of vitamin K effectively reduce prothrombin time prolonged by Dicumarol,[1] but do not influence the rate at which Dicumarol[1] disappears from the plasma. Repeated doses of vitamin K are necessary to reduce the prothrombin time if the Dicumarol[1] plasma level is also high. In most instances, the prothrombin time will become reduced to a safe level, although not necessarily to normal, within 24 hours.

Dicumarol[1] should not be given empirically. It is as amazing as it is unfortunate, that, from time to time, cases are still being brought to light in which Dicumarol[1] is administered in

1. "Dicumarol" is the collective registered trademark of the Wisconsin Alumni Research Foundation.
2. From the Third (New York University) Division, Goldwater Memorial Hospital, Welfare Island, New York; and from the Department of Medicine, New York University.
3. Shapiro, Shepard, and Weiner, Murray: *Coagulation, Thrombosis and Dicumarol.* Brooklyn, Medical Press, 1949.

daily dosage without adequate control by reliable estimation of the prothrombin time. Such therapy will result either in insufficient prothrombin response or hemorrhage.

Estimations of prothrombin time which are unreliable or lacking in sensitivity are little improvement, if any, over no prothrombin time estimations at all. To be reliable, the method should be one employing a uniform, standardized, stable thromboplastin. The manipulative characteristics of the operator should be constant and the endpoint decided upon should be unmistakable. Using thromboplastin of constant and adequate activity, saline diluted (12.5 per cent) plasma reflects alterations in prothrombin time earlier and more clearly than whole plasma. For this and other reasons previously described[3] in other publications by the authors, the routine estimation of both whole and diluted (12.5 per cent) plasma prothrombin time is advocated. The results are recorded in seconds rather than per cent. The clinician should know the normal range of the thromboplastin used and the therapeutic range he wishes to establish in terms of time. With this knowledge the calculation of percentage is superfluous; without it, the percentage figure is misleading.

A NEW THROMBOPLASTIN[4]

The recent development of a reliable and relatively stable preparation of thromboplastin which requires simply the addition of a stated quantity of distilled water to be made ready for use should result in a more universal application of accurate and dependable estimations of prothrombin time. Recently such a thromboplastin extract has become available on the market.[4] This preparation[4] simplifies the procedure and eliminates sources of serious error. Its wide use should augment the reliability of prothrombin estimations so that the problem of Dicumarol[1] dosage can be attacked with greater confidence.

MANTENANCE DOSAGE

The maintenance dose method is, at present, the most widely attempted means of control of Dicumarol[1] dosage. Usually, a larger quantity is given initially (300 milligrams the first day, 200 the second day) and, following this a smaller daily dose is administered in an attempt to achieve and to maintain a constant level of hypoprothrombinemia within a range believed to be safe. The prothrombin time is estimated daily and the dose of Dicumarol[1] given or withheld according to the result of the test.

This method takes into account only the momentary prothrombin. It does not give any consideration to the question of whether the prothrombin time is rising or falling. Yet maximum concentration of Dicumarol[1] in the plasma in response to a given dose may not be achieved for 24 hours after an oral dose. Furthermore, maximum prolongation of the prothrombin time in response to this level may follow in about 48 hours. For these reasons, "maintenance dose" method may result in the administration of additional Dicumarol[1] when the prothrombin time is already destined to become high. Daily doses may cumulate to high levels in an insidious fashion, inducing delayed and possibly dangerously prolonged prothrombin time. On the other hand, small repeated doses may be rapidly transformed and many critical days may pass before it is realized that the doses being given are therapeutically inadequate. In the event of variability in absorption, the effect of repeated doses becomes unpredictable.

INTERMITTENT DOSAGE

Because of these difficulties in estimating the trend of the prothrombin time during daily maintenance dosage, a method of intermittent dosage seems preferable. According to this schema, a relatively large single dose is given initially, so that adequate initial prothrombin response is achieved. Serial estimations of the prothrombin time are made but no further Dicumarol[1] is given until the peak prothrombin time has passed. When the prothrombin time returns toward normal another single effective dose is given. *Dicumarol[1] is not given if the prothrombin time is rising.* This rule holds true even if a therapeutic level has not been achieved. After the second single dose is given, the peak prothrombin time is again observed

4. The preparation is known as Simplastin. It is manufactured by Chilcott Laboratories, Division of the Maltine Co., Morris Plains, N. J.

and the drug again repeated in single effective doses given in the frequency indicated by the prothrombin time curve, i. e. when the peak prothrombin time has been passed and the prothrombin time returns toward normal. Thus, at any moment, it is known to which dose the prothrombin time is responding, and that a downward trend, once observed, will continue toward normal until another dose of the drug is administered. There is no problem of cumulation and failure of absorption of the drug can be promptly recognized. Persons who transform Dicumarol[1] rapidly may require doses as frequently as every two or three days, while "slow transformers" of Dicumarol[1] may require a dose only at about eight to ten-day intervals.

THE INITIAL DOSE

There is no empirical rule for estimating the magnitude of an initial dose which will be safe and effective in every patient. Several factors should be evaluated. These are:

1. *Weight of the patient.* Doses should be determined on a "body weight" basis. The initial dose averages about 8 to 10 milligrams per kilogram of body weight.
2. *Age:* Older patients are likely to be Dicumarol[1] "sensitive".
3. *Nutritional state:* Poor recent nutrition frequently enhances sensitivity to Dicumarol.[1]
4. *Severe anemia:* Patients with very low hemoglobin values are usually Dicumarol[1]-sensitive.
5. *Liver diseases:* Only under exceptional circumstances when use of the drug is imperative, should patients with Laennec's type of cirrhosis be given Dicumarol.[1] Passive congestion of the liver, however, is *not* contraindication to Dicumarol[1] therapy.
6. *Initial prothrombin time:* Patients exhibiting hyperprothrombinemia[5] generally require larger doses of Dicumarol.[1] If there is pre-existing hypocoagulability Dicumarol[1] should be given most cautiously.
7. *Urgency of therapy:* A calculated risk may be imperative. In treating a patient with recurring pulmonary embolism, each episode of which may be life-threatening, one should err on the side of overdosing rather than underdosing. On the other hand, in treating patients with relatively mild thrombotic disorders, in whom prolonged therapy is contemplated, the therapy may be initiated more cautiously.
8. Patients who have a history of *Gastro-intestinal ulceration* or other bleeding lesions must be treated with extreme caution.

After taking into consideration all of the above factors, one may arrive at an initial dose of as little as 200 milligrams or as much as 1000. A peak prolongation of the prothrombin time to 2 to 2½ times the normal control value (whole plasma) and about 3 times the normal value of the diluted (12.5 per cent) plasma prothrombin time is considered desirable.[6]

SUBSEQUENT DOSES

Subsequent doses are judged by the response to the initial dose. Each succeeding dose is given when the prothrombin time has become reduced about half-way to normal (about 25 seconds, whole, and about 65 seconds diluted (12.5 per cent) plasma prothrombin time). If the initial dose results in the desired response, a repeat dose one-half the size of the initial dose may be expected again to induce a response to the desired level. If the prothrombin time initially becomes prolonged excessively or inadequately, the subsequent dose is altered accordingly. In the event of too marked extension of the prothrombin time there is generally little probability of bleeding because additional Dicumarol[1] is not given at the time and consequently the plasma level of the drug will fall. If the increase in prothrombin time should appear alarming, vitamin K can be administered parenterally to reduce the prothrombin time to a safe range. In this manner, by following the response to intermittent doses, a rational basis replaces much of the guess-work otherwise involved in outlining Dicumarol[1] dosage.

THE ANTICOAGULANT ARMAMENTARIUM

Dicumarol[1] leaves much to be desired as an anticoagulant drug. The preferred clotting inhibitor would be one which is clinically effective, completely and rapidly absorbed, metabolized uniformly by different subjects, with prompt onset of its therapeutic effect, and devoid of hemorrhagic or other toxic effects. No drug has been forthcoming which possesses all these characteristics. Recently several new

5. Hyperprothrombinemia (prothrombin activity increased beyond normal i. e. prothrombin time reduced below normal) is best detected in the diluted (12.5 per cent) plasma prothrombin time.
6. With Thromboplastin-Chilcott or the newer preparation, Simplastin, mentioned above (Chilcott Laboratories, Division of the Maltine Co., Morris Plains, N. J.), which the authors have employed, the desired peak prothrombin time is 35 to 40 seconds, whole plasma, and 100 to 120 seconds, diluted (12.5 per cent) plasma prothrombin time.

preparations have been introduced but none has yet had a sufficiently extensive clinical trial to establish its clinical value. Two more rapid-acting drugs, Tromexan[7] (4,4′ dioxycumarinyl acetic acid) and Danilone (phenylindanedione), demonstrate a more rapid onset and disappearance of prothrombin response following single doses. Early experience indicates that the maintenance of a therapeutic level of hypoprothrombinemia over extended periods with these drugs, is more difficult than with Dicumarol.[1] Hemorrhage remains the potential danger. Preliminary studies of plasma Tromexan[7] concentrations following oral administration yield considerable variations in the levels achieved in the plasma in different subjects given the same dose. Since the drug is rapidly excreted and must be given at least once a day, such variations may make proper dosage difficult.

Experience with Dicumarol[1] in patients who metabolize the drug at different rates indicates that those subjects who transform the drug rapidly, and consequently require more frequent doses, are more difficult to control over long periods of time. This fact, plus the difficulties encountered in maintaining a constant effect upon prothrombin time with Tromexan,[7] leads us to suspect that anticoagulant drugs with more pronounced and more prolonged activity, milligram for milligram, may be easier to control than shorter-acting compounds such as Tromexan.[7]

The outstanding and important characteristic of an anticoagulant drug is its predictability and constancy of effect from dose to dose and from patient to patient. Preliminary experience with another new drug of this class (Link's No. 63) indicates that it is possibly slightly longer-acting than Dicumarol.[1] Whether or not it is less likely to cause bleeding than is Dicumarol,[1] remains to be determined by more extensive clinical study.

For the present it is suggested that the clinician will achieve the best results by confining himself to the anticoagulant drugs of proved value, administered in a rational manner, until controlled investigations by competent workers demonstrate the superiority of any new preparations.

45 East 85th Street
New York 28, N. Y.

BOARD OF CLINICAL CHEMISTRY ESTABLISHED

A certifying board, the American Board of Clinical Chemistry, Inc., has been established by representatives from the American Chemical Society, American Institute of Chemists, and the American Society of Biological Chemists. This Board will encourage the study, improve the practice, elevate standards and advance the science of clinical chemistry; grant and issue certificates in clinical chemistry to voluntary applicants who have established their fitness and competence; prepare and furnish a registry of individuals with specialized knowledge in clinical chemistry who have been granted certificates. Requirements for admission to examination and certification are:

1. Evidence of satisfactory moral and ethical standing.
2. Educational background equivalent to that of a doctor of science.
3. Accredited courses in analytical, organic, physical and biologic chemistry.
4. Either three years' full-time experience in an acceptable clinical laboratory; or five years in a position of assistant professor or above in biologic chemistry, clinical chemistry or related fields.
5. Candidates without the full formal educational requirements who have practiced clinical chemistry for ten years in a responsible position in an acceptable clinical laboratory, may be certified without examination at the discretion of the Board.
6. Candidates who file applications prior to July 1, 1952, whose qualifications based on training and experience satisfy the Board, may be certified without examination. Other applicants will not receive certificates until they have passed the examinations.

Forms for application and further information may be obtained from the office of the Secretary, Dr. Joseph W. E. Harrison, 1921 Walnut Street, Philadelphia 3, Pennsylvania. A fee of $1.00 must accompany the application request.

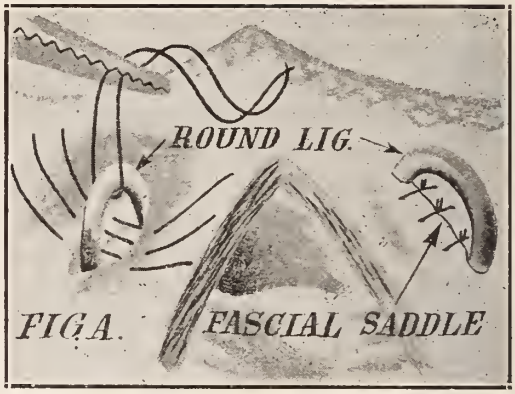
7. Registered trade name—The Geigy Company, New York.

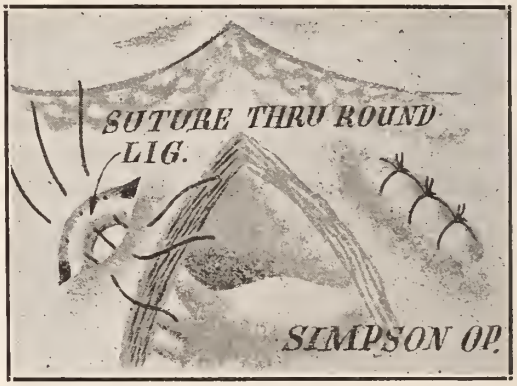
UTERINE SUSPENSION
A SUPPLEMENTAL REPORT

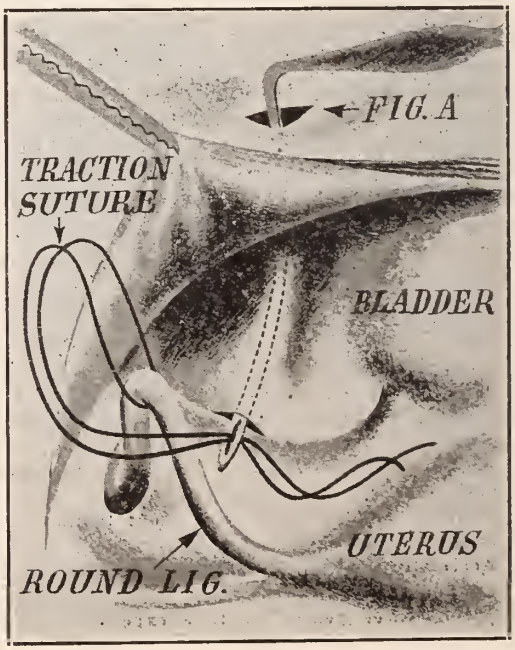
M. E. BAKER, M.D., Camden, N. J.

Last year, I published an article in this JOURNAL* on a new modification of the Simpson operation. This procedure had consistently proved satisfactory where the conventional Simpson operation had failed. Usually during ensuing pregnancies there is recurrence of the former uterine displacement with the old standard Simpson operation. This is because the round ligament is either (a) pulled away from the abdominal anchorage or (b) undergoes degenerative changes and even atrophy because its blood supply had been impaired when it was sutured to the abdominal fascia. In my article* last March, I explained how the fascia was sutured beneath the round ligament leaving it riding in a fascial saddle supporting the uterus. Done that way, the circulation is unimpeded by sutures.

Since the publication of this article I have received numerous requests for a more detailed description of the procedure. To clarify this, I am giving this illustrated supplemental report.







A low median abdominal incision is made. A point on the round ligament is selected the approximation of which to the anterior abdominal wall holds the fundus of the uterus in a normal position. This site is surrounded by a traction loop of no. 2 chromic catgut just beneath which a small hole is snipped in the anterior leaflet of the broad ligament. The lower outer surface of the rectus fascia is bared for five to six centimeters on either side of the incision. A longitudinal cut, two centimeters in length, is made through the fascia four or more centimeters from the medial edge of the fascia and near the outer border of the rectus muscle on a level with the internal abdominal ring. The muscle fibers beneath the cut fascia are widely separated with a hemostat. A long and specially curved pedicle needle is passed through this opening, going retroperitoneally between the layers of the broad ligament emerging through the previously selected nip in the anterior leaflet. The traction loop is now threaded through the pedicle needle which is withdrawn. Traction on the catgut pulls the round ligament through the anterior leaflet of the broad ligament, between the two layers, retroperitoneally out through the opening in the rectus muscle and fascial incision.

*Baker, M. E.: Journal of The Medical Society of New Jersey, 47:123 (March 1950).

Widen the loop of the round ligament the full extent of the two centimeter cut and suture the edges of the cut fascia beneath it with three or four interrupted sutures of cotton, linen or silk. The round ligament is left riding freely in the fascial saddle thus created supporting the uterus in a normal position with its circulation unimpeded by devitalizing sutures and exerting an equal pull throughout its entirety.

I have performed numerous uterine suspensions using this method during the past twenty years. At first I did the Simpson operation on one side and my own operation on the other. Re-operation many years later proved that only my own procedure was satisfactory. In my experience there is *always* a recurrence of the former uterine displacement with ensuing pregnancies following the Simpson operation, but never in mine. Then, too, patients complain of a painful pulling sensation in the lower abdomen over the site of anchorage of the round ligament as done in the Simpson operation, while such is not the case in my modified form. This pain is due to the fact that the firm fixation with sutures in the round ligament in the Simpson operation allows no movement of the ligament as the uterus rises out of the pelvis during future pregnancies. As long as the ligament is firmly anchored with sutures, only the proximal segment of the round ligament is able to respond to the height the fundus of the uterus rises out of the pelvis during pregnancy. The distal or lateral segment of the ligament is firmly fixed between its lateral attachment in the labum majus and its medial anchorage in the abdominal fascia. In my operation the round ligament is not firmly fixed but rides freely in a fascial saddle.

1149 Kaighn Avenue

SURGERY OF THE EXTREMITIES IN CEREBRAL SPASTIC DISORDERS*

SIDNEY KEATS,† M.D., Newark, N. J.

Cerebral palsy is one of the most frequent causes of crippling in children, second perhaps only to poliomyelitis. For many years, the care of the cerebral palsied child had been entrusted to the orthopedic surgeon. After repeated surgical failures, their interest in cerebral palsy waned, and palsied children were neglected more than ever before. In recent years, Phelps[1] and others have proposed, by a more thorough study of the vastly different types of cerebral palsy, a more comprehensive program for the complete rehabilitation of the palsied child. This program now encompasses measures for the psychologic, the educational and the social restoration of the child, as well as for his physical rehabilitation. Surgery of the extremities has a definite role in this program. However, surgical correction is only one element in the overall program. And it must be considered proportionately in each individual child only by what it may contribute to the overall restoration of that child. Surgery in the palsied child is rewarding only when the surgeon has a comprehensive knowledge of the basic fundamentals of the complex clinical entity known generally as cerebral palsy.

Cerebral palsy is a general term designating any paralysis, weakness, incoordination or functional deviation of the motor system resulting from an intracranial lesion.[2] There are five clinical types of cerebral palsy: (1) True cerebral spastic paralysis, (2) Athetosis, (3) Rigidity, (4) Ataxia, and (5) Tremors. The intracranial pathology responsible for these clinical types may be divided into three general groups: (1) Lesions of the motor cortex, (2) Lesions of the basal ganglia, (3) and Lesions of the cerebellum. Lesions of the *motor cortex* of the brain result in spasticity and flaccidity of muscles; lesions of the *basal*

*Presented at the Annual Meeting, New Jersey Orthopedic Society, Orange, N. J., April 22, 1950.

†Medical Director, Cerebral Palsy Division, Crippled Children Commission, Department of Health, State of New Jersey.

1. Phelps, Winthrop M.: Treatment of Paralytic Disorders Exclusive of Poliomyelitis; in Bancroft, F. W., and Murray, C. R.: *Surgical Treatment of the Motor-Skeletal System*, Lippincott Company, Philadelphia, 1945.

2. Keats, Sidney: Journal Medical Society of New Jersey, 45:491 (1948).

ganglia produce athetosis, tremor and occasionally rigidity; and lesions of the *cerebellum* cause ataxia and incoordination. Diffuse punctate lesions of the brain are responsible for rigidity of muscles.

As a general rule, surgery has proved of definitive value in the comprehensive treatment of cerebral palsy only in the spastic group. Any contemplated procedure must be fitted into the overall treatment program for the individual child. This program is directed toward the development of (1) locomotion or walking, (2) speech, (3) arm skills and self help activities, and (4) academic and vocational training. If the proposed surgery cannot materially contribute to the rehabilitation of the child along these four broad objectives, then it should not be considered. Surgery should not be undertaken until the child has had a complete physical examination, including muscle testing and a psychologic investigation; and certainly not until a thorough period of conservative treatment (bracing and muscle training) has been carried out. Any type of purely postural contracture would be subject to surgical correction, depending of course upon the type of cerebral palsy, *only if the patient could use that extremity in the corrected position.* Surgery should not be attempted under any circumstance if facilities for postoperative care by braces, physical therapy, occupational therapy and other primary adjuvants are not available.

Corrective surgery of the extremities in cerebral palsy is most successful in the cerebral spastic group. Extremity surgery in the athetoid group usually results in complete failure and may produce a worse deformity than the original condition. Athetosis is an attempt by the patient to get the extremities into a distorted position no matter what muscle or group of muscles is used to bring about this distortion; surgery, therefore, would only result in the uncontrollable use of other muscles to bring about the same deformity. This is particularly true in the transposition of tendons in the extremities. Surgery in the athetoid child should not be attempted unless the results of the surgery have been imitated by the use of plaster splints or braces over a long enough period of time to determine that the proposed procedure will produce the desired result. In the athetoid group, such surgery should be limited to the arthrodesis of joints, if that is indicated, rather than to tendon lengthening, neurectomy or tendon transplantation.

Surgery in the other clinical types of cerebral palsy (the ataxias, tremors, and rigidities) is seldom indicated and rarely contributes much to the overall rehabilitation of the child.

In the cerebral spastic extremity, the choice of procedure depends greatly on the "muscle picture" in that extremity. In this palsied extremity, one usually detects not only spastic muscles, but also normal muscles and flaccid muscles. This is because the cerebral damage usually involves both Brodman's area four and area six of the motor cortex.[3] When only area four is involved, the corresponding motor component in the extremity presents a flaccid group of muscles. Since the lesion most commonly involves *both* area four and area six, graduations of muscle tone will be found in the "spastic" extremity. The spastic group of cerebral palsy is characterized however by cerebral spastic muscles, that is, muscles exhibiting the phenomenon of the "stretch reflex". This stretch reflex[4] is the ability of a muscle to contract to its maximum as a result of being stretched. That is, the contraction of the antagonist muscle (for example, the hamstring muscles in flexing the knee joint) will produce a stretching of the hypercontractile "spastic" muscle (the quadriceps muscle in this case) causing it to contract and block the voluntary motion of knee flexion. The quadriceps muscle is then said to be a "cerebral spastic" muscle.

Careful muscle evaluation is of utmost importance before any surgical procedure may be considered. As a general rule, in the spastic extremity, tenotomies of contracted muscles are contra-indicated. After tenotomy, a great deal of essential muscle strength is eliminated. After a few years of spasticity, the sheath of the entire muscle becomes shortened as well as the tendon. Nothing is gained by tenotomy under these circumstances. Tendon lengthen-

3. Fulton, J. F.: Physiology of the Nervous System, Oxford University Press, London (1938).
4. Liddell, E. G. T., and Sherrington, C.: Proceedings of the Royal Society of London, 96:212 (1924).

ing, when indicated, is of greater practical value. One should always safeguard the correction obtained by tendon lengthening postoperatively with the application of a brace or a splint. This is needed because the spasticity of the muscles involved has not been changed. The tendons will contract again unless protective appliances are used. Most of these braces and splints need be worn only at night, and then only until the full longitudinal growth of the extremity has been reached. The Stoffel type of neurectomy[5] has been universally accepted as a direct means of eliminating spasticity in muscles. This neurectomy is based on the principle that the power of a spastic muscle may be weakened to a degree which equals its antagonist, thus eliminating the "stretch reflex" and the blocking of voluntary motion through a joint. However, the Stoffel procedure should be modified to the extent that the resection of the nerve fibres is commensurate with the spasticity of the muscles in question. Phelps has described this procedure which may be called a "selective neurectomy" in which only those nerve fibres showing hyperirritability (when stimulated by a faradic current during the operation) are severed. This avoids too radical resection of the nerve which may result in a deformity in the opposite direction. This is especially true in *equinus* deformities of the foot as a result of spastic gastrocnemius-soleus muscles. Here, in the presence of spastic dorsiflexors of the foot as well, complete resection of the tibial nerve in the Stoffel procedure, will produce a reverse equinus deformity, that is, a calcaneus deformity of the foot. This is much more disabling and less desirable for locomotion. The selective type of neurectomy, however, will restore proper muscle balance in the control of the position of the foot.

SUMMARY

1. Surgery of the extremities in cerebral spastic disorders should be considered only as part of an overall program for rehabilitation of the afflicted child.

2. A knowledge of the basic fundamentals of cerebral palsy is essential before planning any operative correction.

3. A complete physical examination, including a muscle evaluation, and a psychologic investigation should be completed in every candidate for surgery.

4. Surgery of the extremities is generally successful only in the true cerebral spastic group of cerebral palsy.

5. Surgery of the spastic extremity should be considered in the light of the "muscle picture" of that extremity.

6. Spastic muscles are characterized by a stretch reflex.

7. A selective type of neurectomy is a gratifying operative procedure for the correction of deformity in the spastic extremity.

31 Lincoln Park

ANTIHISTAMINICS USELESS FOR "COLDS"

Controlled studies at the University of Illinois "demonstrate that antihistaminic drugs do not prevent, abort, shorten, curtail, reduce or stop the common cold," according to Dr. Noah D. Fabricant of Chicago.

Dr. Fabricant, clinical assistant professor of otolaryngology at the university, reported these findings in the *A.M.A. Archives of Otolaryngology*. He confirmed numerous similar studies in the United States and Great Britain.

"It was observed", he said, "that antihistaminic drugs are no more effective than placebos in aborting a cold and that there is no validity to the contention that antihistaminic drugs are more effective if taken within a short time after the start of a cold".

He cited like findings in other studies and added that "sufficient time has elapsed and enough convincing evidence has been accumulated" to establish the ineffectiveness of the drugs in the treatment and prevention of colds.

5. Stoffel, Adolf: American Journal of Orthopedic Surgery, 10:611 (1912).

CONGENITAL ATRESIA OF THE ESOPHAGUS WITH TRACHEOESOPHAGEAL FISTULA*

REPORT OF A SUCCESSFUL OPERATIVE RESULT

EARL A. O'NEILL, M.D., Plainfield, N. J.

A decade has passed since Leven[1] and Ladd[2] almost simultaneously made the first successful attack upon atresia of the esophagus with tracheoesophageal fistula, a congenital anomaly which before that had been 100 per cent fatal. A review of the literature prior to their reports discloses that successful results could have been anticipated because of the advent of antibiotics, advances in anesthesia and in principles of surgery in this field and because of the better understanding of fluid and electrolyte requirements. Lanman[3] had stated that "the successful operative treatment of a patient with this anomaly is only a matter of time".

The first two cases referred to, were operated upon by the so-called "indirect plan" carried out in several stages to avoid extensive extrapleural procedures in critically ill infants. This plan also provided a method of subsequent establishment of continuity of the alimentary tract for cases in which the two ends of the atretic esophagus were so widely separated as to make end-to-end anastomosis impossible. Briefly this procedure entailed (1) extrapleural ligation and division of the tracheoesophageal fistula, (2) gastrostomy, (3) cervical esophagostomy and (4) construction of an anterior thoracic esophagus.

The "direct plan", in contrast, consists of (1) an extrapleural division and ligation of the tracheoesophageal fistula and (2) creation of continuity of the esophagus by primary end-to-end anastomosis of the esophageal segments. This procedure was first employed by Lanman[3] in 1936 but was first used successfully by Haight[4] in 1941. It is the operation of choice when the esophageal segments are not too widely separated and it can be used in 85 per cent of cases.[5,6] Good judgment and experience are valuable in determining the suitability of cases for primary anastomosis. It is generally agreed that if the ends of the esophagus are more than one or two centimeters apart, the possibility of joining them without tension is slight.[7,8]

The surgical treatment is clear cut in the commoner cases described above. The problem of what procedure should be carried out in the 15 per cent of cases in which the segments are widely separated or in which there is atresia of the distal end of the esophagus, not joined to the trachea, has been met in a variety of ways. The indirect plan is suitable here but the prolonged hospitalization, the numerous operations and the unsatisfactory end results have been obvious disadvantages. A review of plastic operative procedures, designed to create an antethoracal esophagus, whether by skin tube or by jejunal transplants, will not be discussed in this paper.

An early plan for establishing continuity of the alimentary tract, using cervical esophagostomy with subcutaneous tunneling of the stomach to decrease the distance to be bridged by the skin tube was first advanced by Carter[9] and modified by Lam.[10] Rienhoff[8] added to the procedure a one-stage antethoracal subcutaneous implantation of the stomach with an esophagogastrostomy at the level of the clavicle and performed this operation on two infants, one 5 and one 8 days old. There was some leakage of saliva at the anastomosis in both infants; however, they survived for a year but died later of infantile diarrhea and staphylococcal pyemia.

Swenson[11] in 1946 performed the first successful esophagogastrostomy through a transpleural approach for atresia of the esophagus without tracheo-

*From the Department of Surgery of the New York Hospital and Cornell University Medical School.

1. Leven, N. L.: Congenital atresia of the esophagus with tracheoesophageal fistula. J. Thor Surg., 10:648 (1941).
2. Ladd, W. E.: The surgical treatment of esophageal atresia and tracheoesophageal fistula. N. England J. M., 230:625 (1944).
3. Lanman, T. H.: Congenital atresia of esophagus. Arch. Surg., 41:1060 (1940).
4. Haight, Cameron, and Townsley, Harry: Congenital atresia of the esophagus with tracheoesophageal fistula. Extra pleural ligation of fistula and end-to-end anastomosis of esophageal segments. Surg. Gyn. Obst., 76:672 (1943).
5. Lyon, C. G., and Johnson, S. G.: Congenital esophageal atresia and tracheoesophageal fistula. J. Thor. Surg., 17:162 (1948).
6. Rosenthal, A. H.: Congenital atresia of the esophagus with tracheoesophageal fistula. Report of eight cases. Arch. Path., 12:756 (1931).
7. Ladd, W. E., and Swenson, Orvar: Esophageal atresia and tracheoesophageal fistula. Ann. Surg., 125:23 (1947).
8. Rienhoff, W. F.: Antethoracal transplantation of the stomach in the treatment of congenital atresia of the thoracic esophagus. A preliminary report. Bull. J. H. Hosp., 82:496 (1948).
9. Carter, N. B.: An operation for the cure of congenital atresia of the esophagus. Surg. Gyn. Obst., 73:484 (1941).
10. Lam, Conrad R.: Further experiences in the surgical treatment of congenital atresia of the esophagus with tracheoesophageal fistula. Surg., 20:174 (1946).
11. Swenson, Orvar: End-to-end anastomosis of the esophagus for esophageal atresia. Surg., 22:324 (1947).

esophageal fistula in a newborn whose upper pouch extended down to the bifurcation of the trachea. In the same year Lyon[5] performed an esophagogastrostomy above the level of the aortic arch but his infant died of aspiration pneumonia. At autopsy the blood supply of the stomach was found to be adequate and the anastomosis intact.

In view of the few satisfactory results which had been obtained by the creation of an antethoracal esophagus, Sweet[12] in 1947 performed an intracervical esophagogastric anastomosis on a 21 month old male. The cervical esophagostomy and gastrostomy with anastomosis was accomplished by mobilizing the stomach through a transpleural opening and by resecting the medial half of the clavicle and a corresponding portion of the first rib.

For comprehensive discussions of the embryological explanation of the anomaly the reader is referred to other articles.[6, 7, 13, 14, 15] The theory presented by Streeter (cited by Rosenthal[6]) is the one generally accepted; briefly he believes that the dorsal esophagus and ventral trachea are normally formed from one tube as the result of cellular proliferation at opposite lateral internal surfaces. If a deficiency of cells occurs along these two opposing surfaces, a fistula remains between esophagus and trachea. When a deficiency of dorsal entodermal cells is present, the esophagus is not formed.

CLASSIFICATION

The simplest classification of various types of atresia is presented by Ladd[2] and is based on cases encountered at the Children's Hospital in Boston. Type III in his designation consists of atresia of the esophagus at the level of the junction of middle and upper third, plus a fistulous tract between the trachea and upper end of the esophagus. This is the commonest anomaly and approximately 90 per cent of cases belong in this category.[3, 15, 16]

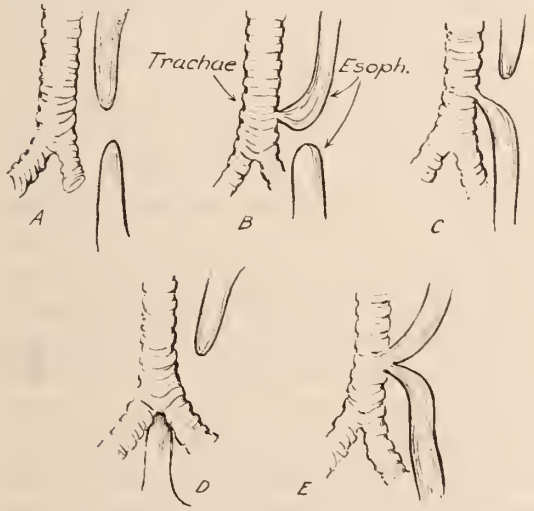


Diagram showing the arrangement of the trachea and esophagus in the various types of esophageal atresia and tracheoesophageal fistula. A—Type I. B—Type II. C—Type III. D—Type IV. E—Type V. Ladd's Classification (From the New England Journal of Medicine, 230:625-637, May 25, 1944).

DIAGNOSIS

The diagnosis is not difficult to make, once the condition is suspected. Any newborn infant showing excessive salivation with regurgitation, strangulation and cyanosis particularly when taking feedings, should have a French No. 10 rubber catheter passed into the esophagus. If obstruction is met at a distance of about 10 to 12 centimeters from the gum margin, the diagnosis is almost certain and can be confirmed under the fluoroscope by injecting 0.5 cubic centimeters of iodized oil into the catheter. Barium should never be used for this purpose. The oil should be aspirated after the examination. Roentgenograms of the chest and abdomen are made to determine the position of the catheter, for identification of the lowermost level of the proximal segment as related to the adjacent thoracic vertebrae may indicate whether or not a primary anastomosis will be possible. If air is seen in the stomach, the diagnosis of tracheoesophageal fistula is almost certain though absence of air in the stomach does not rule out such a fistula.[17]

Infants with congenital atresia of the esophagus usually are well-developed and well-nourished at birth but lose weight steadily thereafter. The abdomen sometimes is distended and tympanitic on percussion. Meconium is passed early but stools then become scanty and bile stained. Oliguria is present and infants usually are febrile as a result of dehydration or of an aspiration pneumonia.

12. Sweet, Richard: A new method of restoring the continuity of the alimentary canal in cases of congenital atresia of the esophagus with tracheoesophageal fistula. Ann. Surg., 127:757 (1948).
13. Ingalls, T. H., and Prindle, R. A.: Esophageal atresia with tracheoesophageal atresia. Epidemiologic and teratologic implications. N. England J. of Med., 240:25 (1949).
14. Singleton, A. O., and Knight, M. D.: Congenital atresia of the esophagus with tracheoesophageal fistula. Transpleural operative approach. Ann. Surg., 119:556 (1944).
15. Gage, Mims, and Ochsner, Alton: The surgical treatment of congenital tracheoesophageal fistula in the newborn. Ann. Surg., 103:725 (1936).
16. Haight, Cameron: Congenital atresia of the esophagus with tracheoesophageal fistula. Surg. Gyn. Obst., 84:504 (1947).
17. Haight, Cameron: Congenital atresia of the esophagus with tracheoesophageal fistula. Reconstruction of the esophageal continuity by primary anastomosis. Ann. Surg., 120:623 (1944).

TREATMENT

As soon as the diagnosis is established, plans should be made for early surgical treatment which implies surgery undertaken as soon as fluid and electrolyte balance have been obtained. The fluid requirement of the newborn is two and one half to three ounces per pound per day. However, individual requirements vary, depending upon the number of days the infant has been without nourishment. During the preparatory period, antibiotics are administered and a search is made for associated anomalies. Multiple malformations are common.

The infant should be kept in an oxygen tent to prevent aspiration pneumonia or to care for pneumonia if it is present. The secretions from pharynx and upper esophagus should be aspirated frequently. Haight[17] recommends the prone position with the foot of the bed elevated. This seems logical. The infant should be turned from side to side frequently; however, if atelectasis has developed, the atelectatic side should be kept down and the unaffected side uppermost to protect the remaining pulmonary reserve. Parenteral fluids are best administered by cutting down on the greater saphenous vein just above the ankle; fine polyethylene tubing can be inserted into this vein without undue trauma.

In giving these infants their pre-operative medication it should be remembered that morphine and cyclopropane are both central respiratory depressants and the action of one may augment the effect of the other. Morphine and atropine in the dosage recommended by Leigh and Belton[18] will not cause respiratory depression. Endotracheal cyclopropane is the anesthetic of choice for it can be given with a high oxygen content and when administered through a Digby Leigh valve it permits the use of positive pressure to aid respiration or to compensate for cyanosis or apnea. The endotracheal tube also simplifies identification of the trachea in the posterior mediastinum.

18. Leigh, M. Digby, and Belton, M. Kathleen: Pediatric Anesthesia. The MacMillan Company, New York (1948).
19. Gross, R. E., Scott, H. W.: Correction of esophageal atresia and tracheoesophageal fistula by closure of fistula and oblique anastomosis of esophageal segments. Surg. Gyn. Obst., 82:518 (1946).

OPERATIVE TECHNIC

The operation, in the case here reported, closely followed the method of Ladd and Swenson[7] the technical details of which are explained in their report. Briefly, a right-sided, curved paravertebral incision is made in the space between the spinous processes and the vertebral border of the scapula commencing over the second rib. One or two centimeter segments of the second, third, fourth and fifth ribs just distal to their angles are resected and muscles, nerves and blood vessels ligated. The pleura is then gently stripped off of the paravertebral muscles, exposing the sympathetic nerve with its ganglia. The terminal trunk of the azygos vein is ligated and divided and by following the vagus nerve downward the distal esophagus is reached. The proximal, dilated pouch of the esophagus can be freed extensively, for its blood supply is generous but this is not true of the aboral end; the latter, with its fistulous communication, should be partially dissected off of the trachea and the defect in the trachea closed step by step as the dissection progresses.

A primary anastomosis can be done if the distance between the segments of the esophagus is not too great and the diameter of the distal end not too small. If great disparity between the lumen of the two ends of the esophagus exists, the technic of Gross,[19] in which the union is fashioned obliquely, is to be recommended. A posterior layer of interrupted sutures of very fine arterial silk (#00000) on atraumatic needles is first introduced; the second layer of mucosa is sutured with very fine catgut. The anterior suture of silk is then placed. A catheter introduced into the upper segment of the esophagus, to avoid spillage when the pouch is opened, and passed into the stomach to rule out other atretic areas, will facilitate the anastomosis, but it should be removed at the end of the procedure. Traction sutures through the muscularis and submucosal coats of the upper segment and carried from there through the paravertebral fascia, reduce tension and diminish motion at the site of the anastomosis. The wound is closed with drainage and five cubic

centimeters of a solution of 25,000 units of penicillin and 250 milligrams of dihydrostreptomycin is instilled into the retropleural space. A portable x-ray of the chest should be obtained at once after operation to determine the status of the pulmonary and mediastinal structures and should be repeated daily for as long as necessary.

POSTOPERATIVE

After operation, fluids and antibiotics are given parenterally with the infant in an oxygen tent. If a gastrostomy has been performed, small instillations of water may be started in 24 hours and increased gradually until a formula can be taken. Feedings by mouth can be given on the tenth postoperative day but it is advisable first to ascertain that the anastomosis is patent by fluoroscopic examination with iodized oil. If the infant is without fever and the wound appears satisfactory, the drain is shortened progressively and removed on the fifth day after operation.

CASE REPORT

A girl was born in Brunswick Hospital, Amityville, L. I., on January 19. Birth was by forceps extraction at full term; the cord was around the neck. She weighed 7 pounds and 3 ounces. The mother aged 29 years had had 3 pregnancies; the last was complicated by hemorrhage in the first trimester which was possibly due to her attempts to bring about abortion with medications.

The infant appeared to be normal on the first postnatal day but on the second, when feedings were started, she promptly regurgitated the swallowed nourishment and became cyanotic. She was placed in an oxygen tent but further feedings resulted in repetition of asphyxia and she was noted to salivate excessively.

The pediatrician fluoroscoped the infant and tried without success to pass a tube. A diagnosis of atresia of the esophagus was made and the baby was brought to the pediatric service of the New York Hospital in an oxygen tent on January 21, 1950.

Physical examination showed a well-developed, well nourished, moderately jaundiced child who was active and had a soft cry. She became cyanotic when removed from the oxygen tent. Her temperature was 38.6° C, her weight was 3140 Grams. In front of the tragus of both ears were papillomata. The lungs showed many coarse rales but there was no sign of consolidation. The abdomen was soft and not distended.

The laboratory examinations showed the hemoglobin to be 13.5 Grams; red blood corpuscles 5,100,000; white blood corpuscles 9700; lymphocytes 19 per cent; eosinophils 2 per cent; basophil cells 4 per cent; mature polymorphonuclears, 40 per cent; immature polymorphonuclears, 4 per cent. The blood chemistry was not remarkable. Cultures from the nose and throat showed hemolytic staphylococcus aureus and beta hemolytic streptococcus.

A surgical consultation was requested and the surgeon passed a small catheter into the esophagus under fluoroscope. This was seen to curl back on itself after it had traversed about 10 centimeters below the gum margin. About one cubic centimeter of lipiodol was injected into the catheter and an x-ray taken of the chest. The upper blind end of the esophagus extended down to the level of the fourth thoracic vertebra. In spite of care to inject only the minimal amount of oil, some of it was aspirated into the tracheobronchial pathways.

A clysis plus hyaluronidase was started and blood sent to the laboratory for typing, cross-matching and Rh factor determination. The infant was kept in Trendelenburg position in an oxygen tent and the throat was aspirated repeatedly. Four milligrams of vitamin K, 200,000 units of penicillin and 40 milligrams of dihydrostreptomycin were given intramuscularly. Four hours after admission the child was taken to the operating room in the oxygen tent and a transfusion of 100 cubic centimeters of type B, Rh positive blood was started. Under semiclosed nitrous oxide anesthesia a right-sided retropleural incision was made into the mediastinum. The vagus nerve was identified and infiltrated with 1 per cent procaine, for it was found that manipulation in the region of the nerve caused marked slowing of heart action. The proximal blind pouch of esophagus was loosely adherent to the trachea but did not communicate with it. Its diameter was about one centimeter. The aboral end was extremely attenuated and its diameter was judged to be four to five millimeters. It communicated with the trachea just half of a centimeter above the bifurcation. The fistula was dismantled and an end-to-end anastomosis performed. The wound was closed after a solution of penicillin and streptomycin had been placed in the retropleural space.

On the second postoperative day a Stamm gastrostomy was performed and 24 hours later progressive gastrostomy feedings of glucose in water were given; on the sixth day the feedings were changed to 50 cubic centimeters of a 120 calorie alacta formula. These feedings were continued until the infant's oral intake met the proper caloric requirements. On the fourth day after operation, a meconium stool was passed and thereafter bowel movements were normal. All sutures had been removed by the eighth postoperative day. On the tenth day, lipiodol was seen to pass the anastomotic site with but slight hesitation and without evidence of obstruction. After this time, 5 cubic centimeters of penicillin water (50,000 units in 10 cubic centimeters) were given orally without difficulty. Gastrostomy feedings were decreased as feedings by mouth increased until the 24th day after operation when the infant was on full oral intake. Portions of each feeding, however, were regurgitated and this condition persisted until the gastrostomy

tube was removed. An x-ray of the gastro-intestinal tract showed no abnormalities and the patient was discharged on an alacta formula and pablum.

The infant was readmitted to the hospital two months after discharge, with jaundice of a day's duration. A week before this admission she began passing light-colored stools and dark urine. She was well-nourished and developing normally. The liver was palpable 3.5 centimeters below the costal arch. The serum bilirubin was 7. Liver function tests showed some parenchymal hepatic damage and a diagnosis of homologous serum hepatitis was made. The jaundice had decreased but had not disappeared when the child was discharged. Subsequent follow-up examinations showed the child to be healthy in all respects.

COMMENT

The indirect plan of operation, consisting of multiple stage procedures for the creation of an antethoracal esophagus does not now seem warranted in the treatment of this anomaly. End-to-end anastomosis, when possible, is the procedure of choice; when not feasible, esophagogastrostomy would seem advisable. The approach to the esophagus generally accepted as best, is through a right-sided retropleural incision, for it gives the best exposure and is the safest. If after the esophagus is exposed it becomes evident that an end-to-end anastomosis is impossible, it is not difficult to change to a transpleural procedure on the right side and to deliver the stomach through an incision in the diaphragm. Such an operation has not been described in the literature but has been carried out on a still born by the author and appears to lend itself to treatment of this anomaly as it does to esophageal lesions in adults.[20, 21] Another possible method of treatment which justifies further investigation would be to bring the jejunum up into the chest for primary anastomosis to the proximal end of the esophagus.

Authors writing upon the subject differ as to the optimal time for performing gastrostomy. Haight[17] is of the opinion that this procedure subjects the patient to increased risks and frequently is the cause of death. Bigger,[22] on the other hand, believes that a gastrostomy should be done one or two days before the major operation. Gastrostomy does not prevent regurgitation of gastric contents into the esophagus and is therefore associated with danger of flooding the tracheobronchial tree. For this reason the first step in surgical treatment would seem to be closure of the fistula.

Close cooperation between pediatrician, surgeon and anesthesiologist are essential in the intelligent handling of metabolic requirements both before and after operation. This factor is as important in regard to the result of therapy as is the technic of operation.

SUMMARY

A brief review is presented of some of the operative procedures for the treatment of congenital atresia of the esophagus with tracheoesophageal fistula, as well as of diagnostic methods, and pre- and postoperative care. The author describes his case successfully treated by operation. A new approach for cases in which end-to-end anastomosis is impossible is suggested.

503 Park Avenue

20. Lewis I.: The surgical treatment of carcinoma of the esophagus with special reference to new operation for growths of the middle third. Brit. J. Surg., 34:18 (1946).
21. MacManus, J. E.: Combined left abdominal and right thoracic approach to resection of esophageal neoplasms. Surg., 24:9 (1948).
22. Bigger, I. A.: The treatment of congenital atresia of the esophagus with tracheoesophageal fistula. Ann. Surg., 129:572 (1949).

MEDICAL ESSAY CONTEST

Announcement is made of a $100 prize for the best previously unpublished essay on any subject of general medical interest (including medical economics) and practical value to the general practitioner. Contestants must be members of the American Medical Association. Contributions should be typewritten and submitted in quintuplicate on or before May 1, 1951, to Dr. Harold Swanberg, Secretary, Mississippi Valley Medical Society, 209 W. C. U. Building, Quincy, Illinois. Manuscripts should be under 5000 words. Further details may be obtained from Dr. Swanberg at the above address.

OPERATIVE RECOVERY OF MULTIPLE ATRESIA AT ILEO-CECAL AREA

Edwin R. Ristine, M.D., Camden, N. J., Alfred S. Hansen, M.D., Westmont, N. J., and Eugene R. Principato, M.D., Camden, N. J.

Death is inevitable in atresia of the bowel, unless operation can be accomplished. Careful pre-operative and postoperative care, maintenance of fluid balance, good nursing care, teamwork and close cooperation between pediatrician and surgeon, these are the constant cries in the literature in a condition of this kind where nutrition and cooperation mean everything. Surgery is only the *first* step to preserving life.

The existence of atresia has been recognized for more than two hundred years. Successful treatment has been known for less than 40 years. Recoveries are unusual enough to be of interest.

In 1797 Osiander discussed the case of a girl who died at the age of 5 days with complete obstruction of the lower portion of the ileum due to a diaphragm. In 1877 Therimin contributed an excellent and probably the first review of the entire subject. Congenital obstruction of the small bowel was first diagnosed in a living infant by Sutton in 1889. He tried to correct it surgically. The lesion was an ileal atresia in a 2-day old patient. Ileostomy was performed. Death occurred six hours later. Such observations, though isolated in the living, are yearly reported and thus are no longer considered rare.

We, however, wish to report this case because (1) it demonstrates multiple atresia at the terminal ileum, i. e., ileo-cecal junction; (2) an operative recovery was obtained; (3) it emphasizes the importance of pre-operative and postoperative care which eliminates the proverbial verdict: "The operation was a success but the patient died"; (4) it demonstrates the need of persistent cooperation between the pediatrician and surgeon and (5) it indicates the urgency of excellent and constant nursing care.

The pathogenesis and embryologic explanation have been well reviewed in the literature. Schmidt[1] after reporting three cases in 1927 concluded that "it is principally external factors that cause intestinal atresia and stenosis due to circulatory disturbances". Ladd and Gross,[2] Stock and Cannon,[4] Erb and Smith,[3] Arnheim,[5] Judd,[6] Potts,[7] Jemerin and Halkin,[8] all are of the same opinion as we, that embryologically prior to the fifth week, the intestine presents a well defined lumen lined with epithelium. Soon after this the epithelium rapidly proliferates and the lumen of the intestine becomes obliterated by epithelial concrescences. Thus the previously patent intestine passes through a "solid" stage. Later, vacuoles appear among these epithelial cells and a coalescence of these cystic spaces reestablishes the intestinal lumen by the twelfth week. An arrest in development during the second or third month of fetal life results in a persistence of one or more of the septa or cord-like and fibrous bands completely obstructing the lumen. This explains the situation as found in this case.

Montgomery[9] states that in atresia there is a complete obstruction with a continuity of the bowel and its mesentery, the occlusion being due to a complete septum or to an absence of the lumen in one or more segments of the bowel. In rare instances this may be due to tumors, peritoneal bands or pressure from mesenteric pedicle. In most cases, they are caused by failure of normal vacuolization and canalization of the epithelial proliferation that fills the lumen of the bowel until the second month of fetal life. The site of occlusions is in the duodenum at or near the papilla of Vater in one third of the cases and less frequently at the duodenojejunal angle, or at the site of the vitalline duct, or elsewhere in the ileum or jejunum. Rarer still it is in the colon, and the rarest of all at the ileo-cecal junction.

Occurrence of atresia in siblings is apparently unusual. The probable occurrence of several cases in one family was discussed by Rogers[22] and by Farr and Fries.[23]. They concluded that there was no familial tendency.

Here is our own case, presenting several

novel features, and reported because this is the only case on record where a baby recovered from multiple atresia of the terminal ileum.

On January 21, 1949, a male child was born to a 26 year old mother. Labor, pregnancy and delivery were normal. Birth weight was 7 pounds, 8 ounces. No abnormalities, injuries or oddities of color or respiration were noted at birth. Usual routine postnatal care was given. The baby took the breast readily and swallowed water without difficulty. It was noticed that no meconium was passed. However, a rectal examination was done. Though the anus was patent, no meconium was encountered. About 48 hours after birth, the baby began to regurgitate milk, water and other fluids given by mouth. He would regurgitate it through the nose as well as through the mouth. He eructated a dark meconium-like substance. The obstetrician felt that he had some congenital obstruction, possibly a mal-rotation, of the gut. He was transferred to the surgical service where we saw a well developed but mildly dehydrated baby with obvious acute distention of the abdomen. When we first saw him he was actually vomiting a meconium-like material. The abdomen was tympanitic to percussion. Peristalsis was high pitched. Sphincter tone was good. The anal orifice was open and no obstruction could be felt in the rectum. Physical findings were otherwise negative.

An x-ray on January 23 showed "many fluid levels observed with patient standing. The distended loops appear to be small bowel and contain considerable fluid. The 'step-ladder' configuration suggests small bowel obstruction, presumably low in the pelvis".

After inserting a gastric tube, a laparotomy was done. The anesthetic (ether and oxygen) was begun at 9.20 p. m. During operation we gave 300 cubic centimeters of 5 per cent glucose in normal saline, intravenously. A protected hot water bottle was placed under the baby throughout the operation. Surgery started at 9.25 p. m. When the peritoneal cavity was opened, we saw markedly dilated loops of small bowel. This was in sharp contrast to the collapsed and contracted bowel distal to the obstruction. The point of obstruction was in the ileo-cecal region where the bowel was twisted on its mesentery. Instead of a lumen, the bowel at this point consisted of a solid cord-like structure. Distal to this, the bowel was stenotic but patent.

The distal bowel was corrected and a side-to-side anastomosis was made between the terminal ileum and the cecum just distal to the appendix. This proved to be patent. The sigmoid (which had been previously visualized) became distended when saline was injected distal to the point of anastomosis. No other abnormality was found and the tissues were closed in layers, using interrupted silk in the anterior rectus sheath. Skin was closed with continuous silk suture.

The procedure was, therefore, an ileo-colostomy with side-to-side anastomosis. The operation ended at 10:45 p. m. The child left the operating room in good condition, and was placed in a heated incubator with continuous nasal suction. He responded well. We ordered continuous nasal suction with charting of output through the nasal tube and intake by mouth. We gave crystacilline, 50,000 units, four times a day. Three meconium bowel movements were reported during the next 24 hours. A pyloric stenosis feeding regimen was administered every three hours. There was no vomiting during the first three postoperative days and the Wangensteen tube was removed on the third day. However on the fourth

Distended proximal ileum with multiple atresias of the terminal 16 centimeters of the ileum. Filament attachment of terminal ileum to the cecum. Completely collapsed colon seen.

postoperative day, the child vomited during the morning feeding. His abdomen was now distended and he had had no bowel movement during the last 18 hours. We now supplemented the feeding routine with normal saline (10 cubic centimeters per pound of body weight) by clysis. The Wangensteen tube was re-inserted and attached to a Stedman pump. X-ray now revealed a narrowing of the right colon at the anastomotic site, with distended and redundant large bowel distal to the anastomosis.

Therapy now included an ounce of olive oil in the enema, followed by daily small saline enemas. This gradually dilated the distal, narrowed colon.

By January 31 (eight days after operation), the suction was still being used. The abdomen was much improved. He continued to feed well and had good bowel movements. We gave 100 cubic centimeters of blood, and some plasma (70 cubic centimeters) every few days. Fluid balance was maintained with parenteral amigen and fluids.

From February 7 to February 26, main problem was inability to control the fluid balance. The infant's condition was progressively downhill as manifested by loss of weight, abdominal distention, vomiting alternating with diarrhea, persistently markedly dehydrated with reversal of the albumin-globulin ration manifested by marked edema of the ankles, legs and scrotum. Therapy instituted was parenteral amigen, crystacilline, penicillin, plasma, whole blood, molar lactate solution together with small repeated feedings at first with a dropper and later through a nipple. Mechanism of constipation, diarrhea and vomiting can be explained by stating that the temporary stricture at the site of anastomosis, most likely from edema, was responsible.

Further complications encountered were cellulitis of the left elbow where repeated "cutdowns" were done. This was treated by administering crystacilline and warm applications. A second abscess of the back developed requiring incision and drainage. With the persistence of this therapy, infant showed improvement though every so often it would show signs of loss of progress. Child's weight showed overall gain of a few ounces a week. A third complication was marked swelling of the right lower extremity particularly in the thigh. The swelling felt as if it might be fluctuant; however there was no fever. At this point patient showed progressive loss of weight, ate poorly, developed more diarrhea with abdominal distention, had a red blood count of less than 2,500,000, white blood count of 13,000. X-ray of the bony parts of the right extremity was ordered and an area suggesting osteomyelitis was reported. However, clinically this appeared to be more of a soft tissue hematoma or abscess. Aspiration was attempted and a blood-like fluid was obtained. Specimen sent to laboratory for culture showed no growth. A diagnosis of spontaneous hematoma of the right thigh was confirmed. The patient still progressively showed signs of improvement. Repeated small transfusions were to be given. Patient continued to take formula well and showed this progressive improvement by the gradual gain of weight. By April 12, child's weight had reached 7 lbs. 13½ oz., blood picture showed 65 per cent hemoglobin, red blood count 3,000,000, white blood count 9000. A barium enema and x-ray series now showed a negligible amount of stricture and the barium passed through the entire G. I. tract without lagging or delay. By April 30 the weight was 8 lbs. 3 oz., and the infant was alert, well, had normal, regular bowel movements. No emesis or distention recurred. On May 5, 1949, patient was discharged weighing 8 lbs. 8¼ oz., taking cow's milk and cereal well.

The patient was followed carefully in Dr. Hansen's office. At each visit, he was developing normally with regards to stature, activity and weight. He took his formula and was no feeding problem. Today he is a healthy boy. Abdominal scar is the only evidence of having been congenitally obstructed at birth.

Congenital anomalies of the small intestine according to Montgomery[9] comprise the following:

1. Abnormalities in the rotation of the gut:
   a. Situs transversus
   b. Congenital volvulus
   c. Incomplete rotation

2. Changes in the lumen:
   a. Stenosis
   b. Atresia
   c. Aplasia

3. Abnormalities of the vitalline duct:
   a. Exomphalos and congenital umbilical hernia
   b. Meckel's diverticulum
   c. Umbilical sinus, fistula, cyst or tumor.

Here we are interested chiefly in the atresia of the small bowel and especially in atresia of the terminal ileum i. e., ileo-cecal area, rarest location of the bowel to show this pathology. According to Schmidt,[1] the sites of predilection for congenital atresia of the intestine include: (1) the lower ileum near the valve of Bauhini; (2) the boundary line between the small and large intestines; (3) the duodenum near the opening of the choledochus and pancreatic duct; (4) less commonly, the site of transition between the jejunum and ileum; (5) rare, colon; (6) rarest, ileo-cecal junction.

Webb and Wangenstein[10] in 1931, estimated the incidence of atresia as 1 to 20,000 infants. Evans[11] reported the incidence of atresia in jejunum and ileum as 3 per cent. Ladd and Gross[2] reported 52 cases with only 2 such lesions at the ileo-cecal valve. Both died—one had an ileostomy and the other ileostomy and ileosigmoidostomy. This clearly shows that the mortality rate following surgical correction of atresia at the ileo-cecal area has been 100 per cent.

The pathogenesis of the failures was attributed to the "drier form and higher bacterial count of the intestinal content at these levels" which lead to greater mortality because of spreading infection and disruption of the

anastomosis. Also contributing to such failures is the fact that we are dealing with two qualities of bowels. The proximal part of the anastomosis is markedly distended, atonic, with poor blood supply and the distal part of the anastomosis is markedly decompressed with thick wall and hypertrophic mucous membrane. These two diagonally opposite types of tissues, when anastomosed, add to the disruption of the anastomotic site.

Since 1941, individual cases or small series have been added by Glover and Smith,[12] Stock and Cannon,[13] Erb and Smith,[3] Arnheim,[5] Judd,[6] Biggs and Pontius,[14] Potts,[15] Ficarra and Degen,[24] O'Neill[25] and Jemerin and Halkin.[8]

Clinical picture varies but little from what Fockins[16] described in 1911. These babies have no bowel movement since birth; or the stool is smaller in amount, drier in consistency; they vomit constantly with the vomitus becoming more and more foul and fecal, containing bile and meconium-like material and greyish green in color rather than the tarry appearance of normal meconium. As in any intestinal obstruction, the higher the obstruction the earlier the vomiting with the distention more localized to the upper abdomen. The lower the obstruction, the more marked and generalized the distention with later vomiting consisting of foul fecal-like material with bile. Occasionally the dilated intestine and peristalsis are visible under the abdominal wall. Rectum may be normal and admit the exploring finger but no meconium found. The patient is obviously dehydrated and losing weight rapidly. Fever is not uncommon.

If bowel movements are present, Farber's Test is of great significance in diagnosis, for the absence of "swallowed" vernix cells can be rapidly determined, and thus a correct preoperative diagnosis of congenital atresia can be made. Roentgenologic studies will give additional confirmatory evidence of obstruction and in some cases will help to localize the site of the lesion. Ladd and Gross,[2] Biggs[14] and others all agree the films of the abdomen in upright and supine positions will give all the important information necessary. X-ray will reveal collections of gas and fluid levels in the loops of small bowel above the obstruction. In atresia, no air will be seen in the distal segment of the bowel. Evans[11] points out that ileal atresias are more difficult to recognize and may be indistinguishable from meconium ileus and volvulus. Atresia, meconium ileus, and anomalous insertions of the mesentery are often combined. In this case, a barium enema is used to determine whether the gaseous distention is confined to the small bowel and to locate the cecum for evidence of a malrotation pointing to volvulus. Barium by mouth is not administered without a great deal of danger, first because of the possibility of aspirating barium (which might be regurgitated and vomited) and second because it might clog the intestinal tract at a subsequent time. If, for any reason, barium is to be given by mouth a thin mixture should be used and a gastric tube (small urethral catheter) should be immediately inserted into stomach and remove by gastric lavage as much of the barium as possible. Our feeling is that barium should *not* be given by mouth unless clinically there is a definite evidence that the obstruction is rather high in the gastro-intestinal tract. The hazards associated with the use of barium in low intestinal lesions are that: (a) a markedly distended loop of bowel which, perhaps, is on the verge of rupturing, will blow out by the added pressure of the barium on the wall; (b) operative procedures are undertaken under greater risk for this renders the anastomosis much more difficult. Some use Diatrast instead of barium, thus lessening the danger of aspiration. We have had no experience with this.

Operative intervention is the only hope in prolonging and preserving life. This is *not* to be delayed: the interval between diagnosis and surgery is significant. Survival time in untreated atresia was investigated by Davis and Poynter[17] who state that the average time is six days. Sweet and Robertson[18] observed an infant with atresia of the small bowel who lived more than three weeks. However, the sooner the diagnosis and operative intervention the better the chance of recovery. Arn-

heim,[5] emphasized the fact that since the operative recovery in a case of congenital atresia of the ileum, reported by Fockins[16] in 1911, there have been eleven successful operations for jejunal or ileal atresia. The only operative recoveries have been effected by establishing a side to side anastomosis between parts of the intestinal tract immediately above and below the site of obstruction. There have been no recoveries with enterostomy except for one case reported by Judd[6] in 1947 which, he says, is the only cure recorded by this method.

Endolateral anastomoses have been done and reported by Schmidt[1] without success. Erb and Smith[3] successfully treated one case of multiple atresia of the ileum by doing an open side to side isoperistaltic anastomosis between the distended jejunum and completely collapsed ileum.

Birgfeld[19] advised a palliative intestinal fistula or artificial anus and radical enteroanastomosis, eventually a combination of both. This now appears unnecessary. Ladd and Gross' choice[2] and the one used by us is a side tracking anastomosis.

Not to be overlooked is pre-operative and postoperative care. Careful and adequate maintenance of fluid balance; body temperature; plasma; protein; blood levels; control of distention by suction; oxygen administration and adequate dosage of antibiotics are all of primary importance. Daily adequate saline enemas to dilate the colon gradually distal to the anastomosis is of great assistance in therapy not only as an aid in restoring the lumen of the previously decompressed distal segment of the colon but (perhaps more important) in decreasing the tension at the anastomotic site, thus aiding in the prevention of disruption of the anastomosis. Careful dietary regimen by residue-free feedings (as Nutramigen) is essential.

Teamwork between pediatrician and surgeon is imperative throughout, for carefully planned regimen for nutrition and the alertness to recognize and treat any complication is most important.

Nursing care cannot be overemphasized. Only those in constant attendance can observe the happenings in detail; without their full cooperation the efforts of others would be futile.

With the advent of chemotherapy, the prognosis of these operated cases appears much more hopeful. Ladd and Gross[2] in their review in 1941 had two cases of atresia at or about the ileo-cecal valve; both of these patients died. In subsequent literature we have been unable to find any reports where the atresia is located at the terminal ileum (ileocecal valve), except for two cases, one reported by Demmer[20] and the other by Rotter.[21] Both were single atresias.

300 Broadway

BIBLIOGRAPHY

1. Schmidt, R.: Arkives fur Klinische Chirurgie, 149:510, (1927).
2. Ladd, W. E., and Gross, R. E.: *Abdominal Surgery of Infancy and Childhood.* Philadelphia, Saunders, 1941. Pages 25 to 43.
3. Erb, W. H., and Smith, D. C.: Annals of Surgery, 120:66 (July 1944).
4. Stock, F. E., and Cannon, D. A.: British Journal of Surgery, 31:96 (July 1943).
5. Arnheim, E. E.: American Journal of Diseases of Children, 69:108 (February 1945).
6. Judd, J. R.: Journal of Pediatrics, 30:679 (June 1947).
7. Potts, W. J.: Surgery, Gynecology and Obstetrics, 85:14 (July 1947).
8. Jemerin, E. E., and Halkin, C. R.: Annals of Surgery, 129:517 (April 1949).
9. Montgomery, A. H.: Wisconsin Medical Journal, 34:826 (November 1935).
10. Webb, C. H., and Wangenstein, O.: American Journal of Diseases of Children, 41:262 (February 1931).
11. Evans, W. A.: Radiology, 51:23 (July 1948).
12. Glover, M. D. *et al.*: Annals of Surgery, 116:337 (September 1942).
13. Stock, F. E., and Cannon, D. A.: British Journal of Surgery, 31:96 (July 1944).
14. Biggs, A. D., and Pontius, G. V.: Journal of Pediatrics, 30:306 (March 1947).
15. Potts, W. J.: Surgery, Gynecology and Obstetrics, 85:14 (July 1947).
16. Fockins, P.: Zentralblatt fur Chirurgie, 38:532 (1911).
17. Davis, D. L., and Poyntner, C. W. M.: Surgery, Gynecology and Obstetrics, 34:35 (1922).
18. Sweet, D., and Robertson, Y.: Journal of the Mt. Sinai Hospital (New York) 10:389 (1943).
19. Birgfeld, E.: Zentralblatt fur Chirurgie, 55:1548 (June 1923).
20. Demmer, F.: Arkives fur Klinische Chirurgie, 147:471 (1927).
21. Rotter, J. W.: Deutsche Zeitschirft fur Klinische Chirurgie, 219:339 (1929).
22. Rogers, E. J.: Medical News (London) 71:435 (1897).
23. Farr, C. E., and Fries, M.: Surgical Clinics of North America, 5:621 (1925).
24. Ficarra, B., and Degen, W.: American Journal of Surgery, 65:123 (July 1944).
25. O'Neill, James F.: American Journal of Diseases of Children, 75:214 (February 1948).

NUTRITION IN CHILDHOOD *

SAMUEL BLAUGRUND, M.D., Trenton, N. J.

To evaluate so comprehensive a subject as nutrition, one must view it not only from the standpoint of foods, caloric value and vitamins; but also from a knowledge of the individual child in relation to his physical development, hereditary background, environmental influences, and emotional stability. We must also take into consideration the prenatal as well as the postnatal period. The baby born of a healthy mother who has observed an adequate diet, who has cooperated to the utmost with her obstetrician and who has been free from acute or chronic infection, will begin life with a sound basis for future health. After birth, all our efforts should be directed toward establishing the baby's digestive function in such a way as to obviate the possibility of any gastric disturbance. Many errors of omission and commission are made during the new-born period when breast milk is not available and we must resort to formula. In the first year of life, the introduction of new foods to the baby can be a fertile field for future trouble unless handled judiciously. As the child grows older and the initial steps of the nutritional ladder have been successfully mounted, the main difficulty is the ignorance and apathy exhibited by many parents who, for some reason or other, find it particularly hard to understand and carry out successfully simplified methods of feeding and management.

For many years, in the eyes of the layman, weight gain was the touchstone of nutrition or malnutrition. A fat child was considered well-nourished and a thin child undernourished, without regard for body structure, family characteristics, or the activity of the individual. Yet, to make an estimate as to nutrition in children, more than one criterion must be considered. Physical examination is of inestimable value and should give the physician (and ultimately the parents) a comprehensive picture of the general state of health. Objective signs such as coloring of the skin, nails, and mucous membranes, texture of the skin, amount of subcutaneous fat, firmness of the muscles, particularly in relation to posture, condition of the hair, alertness of the expression and the general behavior are all to be observed and correlated. A regular gain in weight is expected during the first year. Irregularity may be normal during the second, third, and fourth years, provided a fair average is maintained. Extensive laboratory investigations for the detection of minor aberrations from normal, as a general rule, are unnecessary and expensive. If there is a question of diagnosis, blood counts with particular attention to hemoglobin and red cell count, x-rays of the long bones, tests for vitamin A deficiency, calcium and phosphorus determinations and careful dental examinations are all of definite assistance in assaying the state of nutrition. However, the good clinician should anticipate deficiencies without the aid of costly investigation. He attempts to control the situation by diet. He should consider the family history for clues which might influence his management of the child. Whether or not we believe much in heredity, the genetic pattern is certainly an important factor in determining body size, firmness of muscles, degree of appetite, condition of the skin and temperament.

BASIC FOODS

We consider foods from the aspect of function, namely, to sustain adequately, body structure on the one hand and to supply sufficient energy on the other. The materials of which food substances are composed—proteins, fats, carbohydrates, minerals, calcium, iron and phosphorus—are released only by the processes of digestion and can be regarded as units of nutrition. A well-balanced diet includes foods known to contain an adequate amount of substances necessary to sustain the structural and energy requirements of the

* Read by invitation before the New Jersey Section of the Academy of Pediatrics, Mercer Hospital, Trenton, New Jersey, Dec. 1, 1949.

body each day. The errors made, both by physicians and parents, in the management of the dietary regime are due invariably to poor judgment. During the newborn period when it is possible to make or break the proper functioning of the child's digestive system, it is wise for the physician to proceed slowly in prescribing a formula in the event that the mother cannot nurse the baby. He more or less feels his way until it is possible to determine just what the child's digestive capacity is. Over-feeding is a great mistake. Cow's milk does contain a complete set of food substances but the amounts of protein and salt in it are much in excess of these substances in human milk. In addition, owing to improper grouping of amino acids, when cow's milk is broken down in the stomach and intestines, its protein is not so suitable for infant consumption as that of breast milk. Therefore, the proportion of whole milk in the formula should be restricted and sugar added to supplement the reduced food values. Breast milk is the ideal food for babies, but when circumstances dictate another procedure, a formula is indicated. For premature and sick infants, breast milk from professional donors has proved most satisfactory.

NEW FOODS

The next step in the nutritional development of a child is the introduction of new foods. This, also, must be attempted in a leisurely manner, one thing added at a time until, by the end of the first year, cereals, vegetables, fruits, meat soups, eggs, puddings, breadstuffs (such as Zwieback) and crisp bacon are part of the daily menu. By the time the baby is 18 months old and has molar teeth, the process of establishing good eating habits should be complete and the child able and willing to consume all types of food in amounts proportionate to size and individual requirements. Some foods are richer than others in a particular nutritional unit and it behooves us, in regulating the diet of children, to afford an unlimited choice of foods from which the proper result can be obtained. It is not necessary that the daily menu be balanced calorie for calorie, but it should contain green or yellow vegetables; meat, fish, or poultry (including glandular organs, as liver, kidneys, sweetbreads); one egg; whole grain cereal; a pint of milk for drinking purposes supplemented by cheese, ice cream, or milk puddings; breadstuffs, particularly whole wheat bread; fruits and fruit juices. As for the amount of each food offered, we must remember that the developing, active child's needs are comparable to those of a laborer or farm worker. The amount of each food offered the child should therefore, not be restricted. Small portions of each item should be served on the plate, but as many additional helpings as seem reasonable are permissible. Of course, if a child shows a decided preference for one food to the exclusion of others, a limit must be placed on the amount allowed.

FOOD ADJUNCTS

Cod liver oil or any other fish liver oil, is a necessary adjunct to the diet of both infants and children. It should be first given when the child is one month old and increased regularly in amount during the first year; throughout the next few years the maximum dose for the first year should be given regularly. Vitamins should also be added to the child's diet to supplement the limited supply of them contained in most foods.

FOOD COSTS

A facet of the nutritional problem to be briefly noted is the one of cost—adjusting the balanced diet to a balanced budget. Fortunately, there is such a wide variety of foods available to the American people that it is possible to provide an adequate diet even though the family income is low and the number of food choices proportionately decreased. Here is when the education of parents becomes most important. It is neither wise nor necessary to attempt radical changes in the established food habits of families, whether these are due to racial heritage or monetary considerations; but it is possible to show mothers how to obtain the most nutriment out of their limited diet by a judicious juggling of combinations of foods. Many of our pediatric clinics are attempting this educational pro-

gram, realizing that half the battle of child care is in the prevention of disease through good nutrition.

FOOD REJECTION

The biggest headache of pediatric practice is the grievance: "My child won't eat". This may be due to pathologic reasons but more often has a psychologic background. Refusal to eat spreads consternation until the remedy has been found. Anorexia may be caused by faulty hygiene, such as results from fatigue, excitement, or a sense of strain, lack of exercise, and eating between meals. More often the cause lies in a fundamental trait of human nature—the irresistible urge to rebel against rules and regulations. Children respond as do adults to a situation that is routinized to the point of monotony and exert their personalities by fighting back in the one way they have discovered to be effective with the least possible disadvantage to themselves. In addition, all children like to be the center of attraction; if by practicing passive resistance to food they can gain the undivided attention of their parents, they take advantage of the golden opportunity. Many parents fail to reason out the situation and, instead of ignoring the exhibition, resort to force or cajolery. If allowed to continue for a protracted period, this indifference to food, which, in time, may result in malnutrition, is most difficult to overcome. In cases of this kind, the parents must be instructed to deal with the matter in a calm, disinterested, firm manner. The subject of food should never be discussed before the child. When mealtime arrives, his plate should be placed before him without comment. If he does not eat, he may be excused from the table; but under no circumstances should he be made to feel that his refusal to eat is of any importance. Hunger and appetite go together and a child should be permitted the pleasure of undisturbed enjoyment in a meal. Arguments between the parents at table must be avoided, as is any controversy which may produce an emotional upset in the child. If these simple rules are observed, together with an occasional gratification of the child's preference in foods, an intolerable impasse will be avoided. In extreme cases, it may be necessary to remove the child completely from his regular environment before improvement will occur.

CONCLUSIONS

The lasting effects of an adequate nutritional state during the formative years of life cannot be too greatly stressed. Nutritionally speaking, if a child gets off on the right foot in his first year, he will enjoy accruing benefits and may avoid many illnesses. And if he does suffer an attack of illness, chances are that it will be milder and less likely to be damaging.

In these days of high prices for essential foods, the future physical fitness of our children is of prime importance. Close cooperation between physician and parents is obligatory, a well-thought-out plan of concerted action is necessary. A normal diet, sufficient rest and outdoor play, freedom from emotional strain and too assiduous parental supervision —all these are necessary to the child's well-being.

833 West State Street

EVERY M.D. IS A PRIVATE "HEALTH OFFICER"

Today, because of procedures which have become routine, the private physician's office is a bulwark against such diseases as smallpox and diphtheria. In like manner, it can become one of the most effective agencies for tuberculosis control. By promoting such a public health measure, the general practitioners of the nation would be acting in line with the great tradition of the profession as a force for prevention as well as cure of disease. A. C. Christie, M.D., *Public Reports,* 1950.

ROENTGEN FINDINGS IN THE DIAGNOSIS AND MANAGEMENT OF INFANTILE SCURVY

WITH A REPORT OF THREE CASES

LEONARD S. ELLENBOGEN, M.D., Atlantic City, N. J.; ALDRICH C. CROWE, M.D., Ocean City, N. J.; MARTIN GREEN, M.D., Atlantic City, N. J.

The growing trend toward formula, instead of breast feeding has greatly increased the danger of infantile scurvy. Moise[1] in a series of 15 cases of infantile scurvy observed in Duke Hospital, found that none arose in breast-fed infants. Laubacher[2] reported three cases of scurvy in babies under the age of six months. This indicated that scurvy in formula-fed children can occur in early infancy. The ages in his group of exceedingly youthful scorbutics were 3, 3½, and 5 months. The recommended daily intake of ascorbic acid in infants is 30 milligrams according to the report of the National Nutrition Conference.[3] This amount is supplied by 2 to 4 ounces of fresh or canned orange or grapefruit juice and by 3 to 7 ounces of fresh or canned tomato juice. Cooking and exposure to air however reduce the vitamin C content of foods. Infection, rapid growth, and the use of barbiturates or salicylates increase the body's requirement of vitamin C. Frequently, mothers withhold prescribed amounts of fruit juice because of a fancied or real intolerance to it by the infant, as in our case no. 1. That constant vigilance is required of the pediatrician is demonstrated by a case of scurvy[4] developing in the child of a graduate nurse who, with misguided zeal, carefully sterilized each day the prescribed quantity of orange juice. The appearance of clinical and x-ray signs of scurvy is apparent in infants after three months of a vitamin C deficient diet.

The fundamental defect in scurvy as demonstrated by Wolbach and Howe is the failure of formation of an intercellular "cement substance" resulting in capillary fragility and in lack of growth and of maintenance of bone and cartilage.[5] The clinical picture is due to hemorrhage and hyperesthesia. These are caused by the loss of tensile strength of connective tissue resulting from lack of intercellular cement substance. It is characterized by irritability, pain on movement, poor appetite, sore mouth, and diarrhea. The usual physical findings are tender extremities, swollen and bleeding gums, pallor, petechiae, and malnutrition. All of our cases, however, were in well-developed and well-nourished children. Osterlin[6] notes that soreness of the lower extremities is a very early finding often arousing the suspicion of primary hip joint disease. This was so in our cases nos. 2 and 3. Laboratory findings of aid in the diagnosis of scurvy include: anemia, low plasma ascorbic acid determinations, diminished urinary excretion of ascorbic acid, and the saturation test which is based on the amount of ascorbic acid excreted after administration of a large dose. In normal patients, such a dose causes a sharp rise in output of vitamin C in the urine. Where bodily stores of the vitamin are depleted, the excretory rise does not take place.

Roentgen examinations, especially of the epiphyseal ends of the long bones, offer a convenient method for the study and diagnosis of scurvy and reflect the pathologic changes accurately. Banks[5] in an experimental study of acute scurvy found cessation of the formation of bone and of cartilage at the epiphyseal plate as a result of which longitudinal growth no longer occurred. Due to the lack of intercellular "cement substance", bone and cartilage are neither made nor maintained. Bone absorption is, however, increased and is most marked at the metaphyses, although all por-

1. Moise, D. D.: North Carolina Medical Journal, 3:290 (1942).
2. Laubacher, J. H.: Journal of the Iowa Medical Society, 34:148 (1944).
3. Butler, A. M.: Medical Clinics of North America, 27:441 (1943).
4. Nickman, E. H.: Personal communication (March 1950).
5. Banks, S. W.: Journal of Bone and Joint Surgery, 25:553 (1943).
6. Osterlin, M. F.: Journal of the Michigan Medical Society, 44:1351 (1945).

tions of bone undergo osteoporosis. At the ends of the shafts, atrophy proceeds to such an extent that the epiphysis is held in place only by thickened periosteum. This accounts for the frequency of epiphyseal displacements. The framework of the bony trabeculae at the metaphyses disappears and the cartilage columns become fragmented. Hemorrhages and fractures complete the histologic picture.

Despite the suppression of normal cellular activity in the growing bones, the noncellular activities such as deposition of lime in the epiphyseal plate and internal resorption of the corticalis and spongiosa are undisturbed, resulting in increased thickness of the calcified epiphyseal plate which contrasts with generalized atrophy of the cortex and spongiosa. In roentgen films, the widened epiphyseal disk casts a prominent shadow. It is, however, brittle and weakened, frequently fracturing and projecting beyond the horizontal limits of the shaft to produce spurs. The lack of osteoid tissue at the diaphysis immediately shaftward from the zone of preparatory calcification appears in the x-ray as a line of diminished density, the so-called "scurvy line". The atrophy of the spongiosa is reflected by the diminished density of the ossification centers[7] which because of the persistence of the provisional zones of calcification have dense rims. The atrophy of the spongiosa of the shaft is shown by a "ground-glass" appearance. The cortex of the shaft becomes very thin. In summary, the x-ray changes of scurvy are generalized atrophy of bone associated with thickening of the epiphyseal plates and increased density around the ossification centers. There are lateral spurs at the ends of the diaphyses often with clefts and crevices in the angles between the epiphyseal plate and the cortex, the "corner sign".[8] The cortex is thinned and there is a zone of rarefaction between the thickened epiphyseal plate and the shaft. Fractures and separations of the epiphyseal plate and subperiosteal hemorrhages are frequent. These changes are best seen at the knees, wrists and ankles. With healing, there is thickening of the cortex, increased prominence of the spongiosa, disappearance of the zone of rarefaction, and increase in the width of the dense ring about the ossification centers. If subperiosteal hematomas are present, deposition of calcium begins after administration of vitamin C, resulting in organization and calcification of the hematoma. With growth, the thickened epiphyseal plate is buried in the shaft and appears as a dense white line. The cuff of calcified hematoma is gradually resorbed and the epiphyseal fractures and displacements heal without requiring orthopedic intervention.

TREATMENT

The treatment of scurvy is the administration of 300 to 500 milligrams of ascorbic acid daily until a satisfactory state of vitamin C nutrition is achieved. Polyvitamin preparations should be used as supplements to provide for the frequently associated multiple vitamin deficiencies. Prophylactically, ascorbic acid should be given from the start to all formula-fed infants. As Butler[3] comments, 25 milligrams of ascorbic acid daily should be added to the formula from the second *day* rather than the second *month* of life. Ascorbic acid rather than fruit juice is advised[6] because there is no intolerance to it, there is no variability of vitamin content, and it is cheaper.

CASE REPORTS

Case 1: A well-developed and nourished, 9-month old, white child, had a normal delivery and had developed normally on a formula. There had been progressive gain in weight. Two weeks before examination, the parents noticed irritability and crying whenever the limbs were moved. These symptoms gradually increased. The child was pale but appeared well-nourished. There were hemorrhages of the gums and tenderness of the extremities. The mother had given the child only occasional teaspoon doses of fresh orange juice in the previous four months because she thought the orange juice caused the baby to develop a rash. Roentgenograms of the long bones were made (see figure 1) and reported as follows (by L. S. E.):

Forearms: There is slight decalcification of the bones of the forearms associated with thinning of the cortices. At the wrist joints, the epiphyseal plates are dense and there are zones of relative radiolucency immediately proximal to them. There are spurs projecting from the epiphyseal plates.

Hip joints: There is marked irregularity of the

7. Caffey, J.: *Pediatric X-ray Diagnosis.* Chicago, The Yearbook Publishers (1945).
8. Bromer, R. S.: American Journal of Roentgenology and Radiation Therapy, 49:575 (May 1943).

Figure 1. Active bone scurvy. The arrows point to the marginal spur formation and to the fragmentation of the femoral epiphyseal plates.

Figure 2. Healing scurvy. The arrows show the calcifying subperiosteal hematoma.

Figure 3. Early scurvy of bone. The arrow indicates the thickened epiphyseal plate and the line of decreased density proximal to it.

epiphyseal plates of the proximal ends of the femora attributed to fracture and separation of the epiphyseal plates from the metaphyses.

Ankle joints: There is a fairly wide zone of decalcification immediately proximal to the epiphyseal plate at both ankle joints. There is slight spur formation. The epiphyses of the distal ends of the tibiae and of the tarsal bones display marked central rarefaction with a thin rim of dense cortex.

Knee joints: The changes at the knee joints are particularly striking. The epiphyseal plates of the distal ends of both femora are thickened and extensively fractured. There are spurs at the lateral margins of the knee joints. There is marked decalcification of the ossification centers but their rims are densely calcified. There is a line of radiolucency under the epiphyseal plates.

Ribs: There is widening and beading of the anterior extremities of the ribs.

Diagnosis: Advanced scurvy of bone in an active stage.

The patient was symptom-free one week after administration of 500 milligrams daily. This dose was continued for a month at which time repeat x-rays (see figure 2) were made and reported as follows:

Re-examination of the long bones reveals changes typical of healing scurvy. The cortex is thicker and the spongiosa more clearly defined in all bones examined. No scurvy lines of diminished density are seen proximal to the epiphyseal plates. In the areas of most rapid bone growth, such as the distal ends of the femora and the ends of the tibiae, the remains of the thickened epiphyseal plates are seen within the shafts as transverse white lines. Subperiosteal calcification and bone formation is seen along the shaft of the right femur. Rarefaction of bone and densely rimmed ossification centers persist. The residuals of epiphyseal spurs are still present at the ends of the femora, tibiae, and radii. The bulbous prominences of the anterior extremities of the ribs are still evident.

Diagnosis: Healing scurvy.

Case 2 is reported through the courtesy of Dr. Edward Dyer of Ventnor, N. J. A well-developed and nourished 7 month old white child had been considered a healthy infant until two days before examination when her parents noted that the child appeared in pain whenever her legs were moved. Past history revealed a normal delivery and progressive in weight on a formula. Orange juice had been prescribed but had been administered to the child only "occasionally". At examination, there was no evidence of a hemorrhagic diathesis but the child cried when the legs were touched. X-rays (see figure 3) of the lower extremities were reported (by L. S. E.) as follows:

There is a moderate osteoporosis of the bones visualized. At the knee joints, the epiphyseal plates are thickened and of increased density. There are lines of marked decrease in density under the epiphyseal plates. The ossification centers of the knee joints and of the femoral heads are rarefied and have dense and narrow peripheral zones. *Diagnosis:* Early scurvy of bone.

Figure 4. Healing scurvy. There is increased density of cortex and of spongiosa and disappearance of the "scurvy" lines.

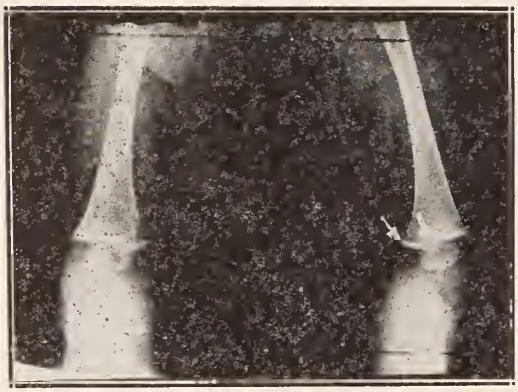


Figure 5. Active bone scurvy. The arrows show a fracture of the thickened epiphyseal plate and the "scurvy" line of decreased density proximal to it.

After two months of appropriate therapy roentgenograms (see figure 4) disclosed increased density of cortex and spongiosa and disappearance of the "scurvy lines". The marginal spurs and relative radiolucency of the ossification centers persisted. In the latter, the peripheral zones were wider and thicker. These changes were interpreted as representing healing scurvy. The child was symptom-free at the time of the examination and had been so within a few days after administration of ascorbic acid in therapeutic amounts.

Case 3: A six-month old baby, was seen in consultation by one of us (M. G.) because of painful crying on any movement of the lower extremities of two weeks' duration. This child had a normal birth history and had been on a diet of evaporated milk and dextrose until the age of four months. At that time it was placed on homogenized B milk. Cereal was added to the diet at 2 months; eggs at 3 months, and vegetables at 4 months. Supplementary vitamin administration was limited to *oleum percomorphcum*, but irregularly. No other vitamin preparations and no fruit juices were given to the infant. One month before examination, the mother noted that the child was relatively inactive and cried lustily on any motion, either active or passive. This became progressively worse, particularly on movement of the lower extremities. Physical examination disclosed a fat, flabby, pale child. There was pain on movement of the lower extremities. The remainder of the examination was negative. X-rays of the lower extremities were reported by (L. S. E.) as follows (see figure 5):

The knee joints exhibit changes characteristic of scurvy. There is a thickening of the end plates of the metaphyses of the femora and tibiae. There is a fracture through the middle of the end plate of the metaphysis of the left femur. Immediately proximal to the epiphyseal plate there is an area of slight decalcification. There is marginal spurring and tearing. There is rarefaction of the epiphyses of the knee joint, which, however, maintain dense peripheral rings. Similar changes are seen at both ankle joints. *Diagnosis:* Scorbutic lesions of the bones of the lower extremities.

The patient's clinical symptoms responded promptly to ascorbic acid. The family lived some distance away from Atlantic City and the child was not brought back for follow-up x-ray studies.

SUMMARY

Infantile scurvy develops in formula-fed infants who for a variety of reasons receive insufficient vitamin C supplements. Roentgen examination of the long bones offers a convenient and accurate method of making or confirming the diagnosis of scurvy. It is also of value in studying the healing process after administration of therapeutic amounts of ascorbic acid. Three case reports are presented with illustrations of the roentgen findings in active and in healing scurvy.

1616 Pacific Avenue

HYPOPROTHROMBINEMIA—WITH CASE REPORT

ANTHONY E. ABRAMO, M.D., Midland Park, N. J.
LEON DE YOE, M.D., Paterson, N. J., and
MEYER NOTKIN, M.D., Paterson, N. J.

Hypoprothrombinemia is a deficiency of prothrombin in the circulating blood. Formation of prothrombin in the body appears dependent on the functional state of the liver. Prothrombin combines with calcium salts to form thrombin. Thrombin converts fibrinogen to fibrin and the mechanism of clotting is thus completed. In an abnormal state where there is a deficiency of prothrombin, such clotting does not occur, and thus it is that we have a hemorrhagic diathesis.

Hypoprothrombinemia may result from a number of causes, including:

1. Imperfect synthesis of prothrombin because of a diseased liver. If there is much hepatocellular pathology accompanied by marked functional impairment, the liver disease may cause a diminution in the plasma prothrombin. Cirrhosis is the best example of this particular cause.
2. Diminution in the amount of bile flowing into the intestine, resulting in impaired fat digestion. With poor fat digestion, no vitamin is freed in the intestine for absorption. Without vitamin K, the liver cannot form prothrombin. Examples are common duct stone and cholangitis.
3. Defective absorption of vitamin K by the gastro-intestinal tract due to disease such as intestinal obstruction or chronic ulcerative colitis. Such disorders prevent the absorption of vitamin K by the large intestine. If vitamin K, in turn, is not carried to the liver by the circulating blood, then, once again, the liver cannot elaborate prothrombin.
4. Nutritional deficiencies (such as sprue and pellagra) may be a factor, according to some authorities. This is denied by others.[1] A diet low in vitamin K may be responsible.
5. Adverse effects on the liver, caused by certain agents such as the salicylates, the xanthines, the sulfonamides, and the arsenicals, may so damage this organ as to impair the formation of prothrombin. Anesthesia with chloroform or ether may do the same. Hypoprothrombinemia may be temporary or prolonged.

At this point one may consider the problems of hypoprothrombinemia simply as follows: certain causes (either intrahepatic or extrahepatic) bring about a low plasma prothrombin. A deficient prothrombin, is, in turn, followed by a break in the clotting mechanism and bleeding takes place. If the cause is extrahepatic, treatment must of necessity be as varied and as simple or complex as the cause itself. That is to say, bile must be permitted to flow into the intestine; disease within the intestine must be corrected so that proper absorption of vitamin K can take place; nutrition, if necessary, must be improved so as to supply adequate vitamin K. Here the *modus operandi* is apparent and easily understood. But the cause may be intrahepatic, and here the story presents several puzzling features.

It is known, for example, that a severely damaged liver does *not* explain all the cases of hypoprothrombinemia where the cause is thought to be intrahepatic. Patients showing evidence of marked hepatic insufficiency (from both a clinical and laboratory point of view) do, on occasion, show ability to utilize vitamin K and to maintain a normal plasma prothrombin. Conversely, at least five cases in the literature cite examples where the amount of liver damage, proved by autopsy in some, was felt to have been too small to cause the hypoprothrombinemia;[2]—and yet these cases at the time could not be regarded as caused by any of the known extrahepatic causes. Puzzling, too, is the fact that some patients, who show poor liver function (as determined by the tests), respond readily and adequately to vitamin K therapy. Others, who laboratorily speaking, show little damage, are resistant to vitamin K therapy, fail to elaborate prothrombin, and consequently manifest hemorrhagic tendencies. Moreover, hypoprothrombinemia may occur with or without jaundice; and marked cases of jaundice do not always manifest a clinical hypoprothrombinemia. These, then, are some of the unexplainable features of this clinical entity.

Before presenting the case history, we call attention to certain laboratory findings: hypoprothrombinemia is characterized by a low

1. Duncan, Garfield G.: *Diseases of Metabolism.* (Second edition, p. 368), Saunders, Philadelphia (1947).
2. Austin, V. Thomas, and Quastler, H.: American Journal of Medical Sciences, 210:491 (October 1945).

plasma prothrombin. Other liver function tests may or may not show significant deviation from the normal. Bleeding time, clotting time, platelet count, fragility test, blood calcium are usually within normal limits. In severe cases of hypoprothrombinemia, the clot retraction is poor. Clot retraction is apparently not affected in the milder cases.[3]

CASE REPORT

A 58 year old white female manifested gross rectal bleeding. She was explored surgically on two occasions because radiologic and clinical evidence suggested a lesion in the intestinal bowel, and pointed suspicion away from the liver. The story unfolds as follows:—On December 27, 1948, she was admitted to the Paterson General Hospital complaining of dyspnea, weakness and nausea. These symptoms were aggravated by exercise. Pallor was marked and hemoglobin was only 33 per cent. Red cell count was 2,260,000. The white count and differential were within normal limits. Three and one half months previously, hemoglobin had been 82 per cent and the erythrocyte tally had been 3,980,000.

She manifested extreme pallor and dyspnea on even slight exertion. Fine crepitant rales were heard in both costophrenic angles and there was a loud systolic murmur at the apex. The liver edge was palpable though not tender. Rectal examination was negative for either neoplasm or internal hemorrhoids. There was no abdominal tenderness. Electrocardiogram showed myocardial damage with left bundle branch block.

The patient had noted bright red blood on toilet tissue daily for the past three weeks, and more significantly, a tarry stool on November 11, 1948. On admission, the stool was strongly positive for occult blood. She had not been troubled by constipation or diarrhea, and she had never used laxatives or antacids. On an average of twice monthly, a cup of hot water had served to relieve her of mild after-dinner distress.

The patient was kept in bed, transfused repeatedly, and put on cracked ice and sips of liquid. As her blood count rose, cardiac symptoms improved. Soon she looked well clinically. Yet the stool continued strongly positive.

On December 29, 1948, the cephalin flocculation was one-plus, blood urea nitrogen was 15.1 per cent and the prothrombin activity was 45 per cent. Gastric analysis showed complete absence of free hydrochloric acid and only a faint trace of occult blood in the sixth specimen. This was thought to be due to trauma. After three weeks, the stool continued to remain highly positive for occult blood, and it was decided to do a gastro-intestinal series and barium enema despite the tarry stools. On January 16, the x-ray report indicated that there was "either a localized ulcer with colitis, malignancy, or adhesions of the ascending portion of the colon. There is some mottling within the region of the gall bladder probably due to cholesterol calculi."

Prothrombin on January 12 again showed an activity of 45 per cent and the patient was immediately placed on a daily oral dose of 40 milligrams of vitamin K. Four days later, the liver edge was no longer palpable.

A pre-operative diagnosis of carcinoma of the ascending colon was made, and the patient was brought to surgery on January 19. Instead of neoplasm, omental adhesions involving the ascending colon were found. These were freed, but no cause for the bleeding could be established. The gall bladder was removed. Five days later, prothrombin activity was 60 per cent, but on the next day her stool was still strongly positive for occult blood. Hemoglobin and erythrocyte count remained satisfactory with transfusions. Platelets, clot retraction, bleeding and coagulation time were normal, and no evidence of dyscrasia or pernicious anemia were noted on blood smear.

On January 27, a gastro-enterologist was called, and after sigmoidoscopic examination, he suggested that the stool had remained positive because of a number of varicosities which were present in the sigmoid about ten inches above the anus. He stated that she had hypochromic anemia due to anacidity. It was believed that this patient had been unable to utilize iron in her diet because of the complete absence of free hydrochloric acid. He suggested "Gluferrate" tablets and continued observation. Strangely enough, the stools soon became negative for occult blood though it is known now that the reason was a rapidly rising prothrombin activity, due to the vitamin K intake. On January 31, it was reported as 100 per cent. Hemoglobin at this time was 85 per cent and erythrocyte count was 4,590,000. Up to this point, the patient had received eight transfusions.

The diagnosis of anemia due to anacidity was, we thought, quite unsatisfactory. But the patient was well clinically, she no longer showed positive stools, her count was up. Accordingly, and with some misgiving, she was discharged on January 31, 1949. She was advised to continue the "Gluferrate" tablets, but permitted to discontinue the oral vitamin K, inasmuch as prothrombin activity was now 100 per cent.

Twenty-six days after her first discharge, she was readmitted with a hemoglobin of 33 per cent and a red cell count of 2,580,000. The stool was four plus for occult blood. She had felt "extremely well" until February 22, when she began to note tarry stools, and with it, accompanying weakness. On March 11, she was placed on 30 milligrams of vitamin K daily. No prothrombin study was done at this time.

X-rays were retaken; the surgeon called in a consultant, who decided that, by exclusion, one had to entertain as the most likely diagnosis a primary small lesion either in the duodenum, or the small bowel.

Laboratory studies showed a normal bleeding and clotting time, normal platelets and clot retraction, normal capillary fragility, and a normal bone marrow study. The patient was transfused repeatedly

3. Kracke, Roy R., and Parker, Francis P.: *Textbook of Clinical Pathology* (Second edition, p. 139), Williams and Wilkins, Baltimore (1940).

and made ready for surgery, and on March 17, the entire bowel was explored thoroughly. The duodenum was opened and examined for tumor of the ampulla of Vater. No cause for the bleeding could be found. It could be ascertained by holding the bowel to the light that the entire jejunum was filled with a dark substance which was probably dried old blood. The liver did not appear remarkable on gross inspection.

It was at this time that we entertained for the second time the thought that the depressed prothrombin was the probable cause for the bleeding—and not just a coincidental finding. On the first occasion the initial prothrombin had been reported as 45 per cent. Later, a second prothrombin again showed an activity of 45 per cent. Accordingly the question as to whether this was a factor in the patient's bleeding had been raised. But since the laboratory had not seen bleeding unless the prothrombin activity had been depressed to a level of 20 to 35 per cent or less, the conjecture that this was a factor had been momentarily pushed aside. But the facts now once again focused attention to the prothrombin. Accordingly, a prothrombin study was ordered for the next morning, the first postoperative day, and a reading of 30 per cent activity was reported. Though this was within the so-called safe level, we decided to push vitamin K. Oral vitamin K was discontinued and the patient was immediately placed on intramuscular doses of "Synkavite".[4] She received 40 to 80 milligrams of "Synkavite"[4] daily for two days. Then on March 19, the "Synkavite" was discontinued and she received daily intramuscular doses of 6 milligrams of menadione.[5] Along with this therapy, the patient received Solu-B,[6] methionine, crude liver, bile salts, intravenous glucose, and a diet rich in carbohydrate and protein.

The original cephalin study, on January 3, had been reported as one-plus. It now read three-plus on March 21. Slowly it improved with vitamin K therapy and it was one-plus on April 7. Bromsulfalein on April 3 showed 85 per cent retention for the first five minutes, but 0 per cent at the end of 30 minutes. Prothrombin activity improved, at first rather slowly, but more rapidly later. On April 3, it was 70 per cent. Four days after specific therapy had been started, the stools became negative for gross blood, and later, for the benzidine test. Stools remained normal for two weeks and on April 18, 1949, the patient was discharged with instructions to continue the entire therapy while at home. This she was able to do with the aid of a nurse. During this second admission, she had received 14 transfusions.

The patient has remained well, and offers no complaints except a tendency to put on weight, which we feel, is nutritional. Laboratory results improved steadily, and on June 3, prothrombin activity was 100 per cent, the cephalin was one-plus and the B.S.P. was 61 per cent at five minutes and 7½ per cent at 30 minutes. At this point she was advised to discontinue the intramuscular injections of liver and menadione,[5] but to continue oral vitamin K. However, oral medication was not maintained, and later studies revealed that prothrombin activity had dropped to 82 per cent. The icteric index was 10.2 and the B.S.P. showed 6.3 per cent retention at 30 minutes. The patient was again placed on oral vitamin K, 40 milligrams daily, and on two Grams of methionine daily, and within a short time, the prothrombin activity returned to 100 per cent.

CONCLUSION

A case manifesting gross intestinal bleeding was presented. Twenty-two transfusions were required during the hospital stay. Prothrombin values were consistently low until intensive vitamin K therapy was started. There was gross intestinal bleeding with positive stools for occult blood with prothrombin values which ranged from 27 to 60 per cent activity. Hence bleeding took place when the prothrombin level was well above the so-called "safe" level of 20 to 35 per cent. Bleeding did not occur when the level rose above 60 per cent. Actually the prothrombin level improved to 100 per cent under intensive vitamin K therapy. No attempt is made to explain why this patient bled with a prothrombin activity of 60 per cent and why on the other hand the dicumarolized[7] patient does not, unless the level falls below 20 per cent. It is simply stated as an observed fact, verified by closely repeated prothrombin determinations. Another case known to the authors (but which differed from this in that there was evidence of marked liver impairment with jaundice) manifested frequent hemorrhage from the nose, gums, and large intestinal bowel when the level was as high as 80 per cent.

It is difficult to explain why this patient showed such a marked specificity with regard to the function dealing with prothrombin elaboration, when other liver function tests (including one icteric index, and any number of cephalin and bromsulfalein studies) revealed a liver, which from the viewpoint of function, was not markedly damaged.

4. Synkavite is the Hoffmann-La Roche registered trade name for their brand of solium, methyl, naphtho, hydroquinone phosphoric ester,—a synthetic vitamin K analogue.
5. Menadione is methyl, naphtho-quinone—a synthetic vitamin K preparation.
6. Solu-B is Upjohn's registered trademark for their multiple vitamin B powder.
7. Dicumarol is the registered trade mark of the Wisconsin Research Foundation. It is a brand of methylene hydroxy coumarin.

141 Glen Avenue, Midland Park
602 Broadway, Paterson
559 Broadway, Paterson

STATE ACTIVITIES

LETTER FROM A WORRIED MEMBER

The chairman of our Physician Resources Committee received the following unsigned letter, presumably from a member. This is published in full for the interest of all concerned. An editorial answer to this letter will be found on page 45 of this issue.

Dr. W. G. Herrman:

I challenge your statements that you as head of Physicians Resources claim men not filling your questionnaires are doing themselves a disservice. First how would you change any man's status from non essential to essential? Second why bother since you can by your own words get the necessary information from the county committee? Do you infer that you would leave out facts which would be pertinent in keeping a man out of service? Would you for instance get any direct rule of policy in reference to veterans, former reserve officers with medical discharges, etc.? Have you or any other official ever championed the rights of doctors as citizens who now are being discriminated against because of their professions? Are doctors' children not as good as laymen's children? Must doctors' children be deprived of their fathers because they are physicians? Or are you just another tool for the purpose of regimenting physicians for political gain as our politicians now wish to so that it be all the easier to socialize medicine under the guise of emergency? Answer through the medium you threaten us, through our medical societies. No one official takes trouble to mention *specific rights,* but only sends out ("threats") regulations. For fear of reprisal I remain

Any Physician

CHRONIC ILLNESS CONFERENCE IN CHICAGO

A national conference has been called to explore ways of *preventing* chronic disease. This is scheduled for Chicago, March 12 to 14, 1951.

Co-sponsors of the national Conference on preventive aspects are the National Health Council and the U. S. Public Health Service.

Discussions of this working conference will be based on authoritative summaries of scientific knowledge regarding prevention and early detection of major chronic diseases including: cancer, heart disease, arthritis and rheumatism, neuro-muscular disorders, poliomyelitis, multiple sclerosis, cerebral palsy, epilepsy, diabetes, blindness, deafness, tuberculosis and syphilis.

Emotional factors in chronic disease, malnutrition including obesity as a cause, heredity in chronic disease, and occupational causes of chronic disease will also be considered.

Practical application of this existing knowledge to community detection and prevention programs will be considered by the conferees in five working sections: (1) evaluation of scientific data; (2) prevention and medical practice; (3) professional information and training; (4) community organization and services, and (5) public information.

Conference delegates will include representatives of national voluntary and official agencies, professional organizations, and individuals working in medicine, hospitals, health, welfare, nursing, dentistry, journalism, education, social work, research, and other fields related to the problem.

The national Commission on Chronic Illness was founded in 1949 by the American Medical Association, American Hospital Association, American Public Health Association, and the American Public Welfare Association. It is now an independent national agency studying the common denominators—the similar social-medical-economic problems—presented by the various forms of chronic illness and disability.

Agencies contributing to the financial support of the new Commission are: American Cancer Society, American Heart Association, American Medical Association, National Foundation for Infantile Paralysis, National Society for Crippled Children and Adults, National Tuberculosis Association, New York Foundation, and the U. S. Public Health Service.

For advance program, write to the Commission on Chronic Illness, 535 N. Dearborn Street, Chicago 10, Ill.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, December 8, 1950, Dr. G. Ruffin Stamps presiding.

The scientific portion of the program consisted of two papers ably presented by DR. CLARENCE WHIMS and DR. MATTHEW MOLITCH. The subject of Dr. Whims' paper was "Non-Medicinal Measures in the Treatment of Arthritis", in which he reviewed and evaluated the numerous means of giving some measures of comfort to arthritics. Dr. Molitch's paper, "The Internist Looks at Anxiety", discussed in excellent detail the psychosomatic application of the anxiety complex.

Dr. Timberlake, reporting for the Welfare Committee, spoke of the many important matters that are under consideration at the state headquarters, and mentioned briefly the chiropodist's bill, the cooperative practice of medicine, and the care of the chronically ill.

Dr. Sloan Stewart, reporting for the Nominating Committee, and in conformity with the amendment proposed to the Society at the November meeting, announced the following nominations to comprise the "Judicial Committee":

Dr. Harold Davidson, Chairman; Drs. Uzzell, Guion, Hyman and McCracken.

To serve a term of two years as a member of the District Judicial Council, the following nominations were made:

Dr. S. Eugene Dalton, to serve from January 1, 1951, to May 31, 1952.

Dr. David B. Allman, to serve from January 1, 1951, to May 31, 1952.

It was moved and seconded that the amendment as proposed, be adopted, and that the election of the committees be approved.

It was voted to appropriate the sum of $300 to the Library Committee for the purchase of books and periodicals to be housed in the library of the Atlantic City Hospital.

Dr. Ackerman announced the new policy of the Red Cross in the Blood Bank program. He stated that due to the present military emergency, the Red Cross will no longer be able to supply civilian blood; that it will be up to individual physicians to see to it that the blood they use is replaced unit for unit. He added that an attempt is being made to have the Red Cross establish a permanent bleeding station here, and that for the present daily bleeding from 2 to 4 p. m., and on Saturday, from 10 to 12 a. m., will take place at the hospital. Dr. Ackerman further stated that the Red Cross quota for Atlantic City has been tripled and that all blood is for the use of the Armed Forces.

The President commented on the importance and urgency of the blood situation, and the matter was freely discussed. Drs. Gottlieb and Sloan Stewart were of the opinion that the present drastic change in the Red Cross set-up should receive wide lay publicity, and various methods of so doing were suggested. Dr. Stamps stated that the public has been heretofore informed that the Red Cross was supplying blood for local use, and that the Red Cross should now notify the public of the change.

BURLINGTON COUNTY

Freeman W. Metzer, M.D., Reporter

The January meeting of the *Burlington County Medical Society* was held at Riverton Country Club on January 11, 1951. The meeting was called to order by DR. R. W. BETTS, president.

The attendance was the largest of the 1950-51 season. The reason for this was the speaker and the subject of his talk. We had the pleasure of hearing DR. W. EDWARD CHAMBERLAIN, professor of Radiology, Temple University, Philadelphia, speak on the very vital subject "Medical Defense in Atomic Warfare". The fact that the discussion lasted far beyond the regular time speaks well for the interest shown.

Our Procurement and Assignment chairman, Dr. R. A. Haldeman gave us all the facts which he had to date on the procurement and assignment of physicians. We were reminded of the all important date of January 15 for registration.

Dr. Viteri reported that the New Jersey Heart Association wished to open a Heart Clinic in the County. The letter from the Association was read and discussed. The request was approved in principle and the Association so notified by the secretary.

The Amendment to the By-Laws which referred to the appointment of a Judicial Committee was read in full at the meeting. The ballot was cast by the secretary after unanimous approval.

All nominations reported at the December meeting were approved. No further nominations were made.

The Woman's Auxiliary has invited the physicians to be their guests at an entertainment and supper at the Riverton Country Club on February 13.

CAMDEN COUNTY

L. G. McAfoos, Jr., M.D., Reporter

January 2, 1951, was "Hospital Night" for the *Camden County Medical Society* which held its regular monthly meeting in the Staff Room of The Cooper Hospital, with DR. O. KLINE presiding.

Our president introduced DR. R. K. HOLLINSHED, president of the Cooper Hospital staff, who in turn welcomed the members of the Society.

A memorial upon the passing of DR. ROY G. HAYS was read by the secretary.

The scientific part of the program arranged by Dr. R. R. Betancourt included case reports by members of the Cooper Hospital staff. Dr. Kline introduced the speakers as follows:

1. ROBERT COOPER, M.D. — *Duodcial Ileus;* (2) MAX L. WEIMAN, M.D.—*Subdural Hematoma;* (3)

H. P. Shipps, M.D.—*Urinary Incontinence;* (4) Philip D. Gilbert, M.D., and Walter A. Crist, M.D. —*Pulmonary Arterio-venous Fistula Syndrome.*

All of the papers proved to be very interesting as well as instructive, gathering considerable discussion and favorable comment.

ESSEX COUNTY

Elizabeth R. Brackett, M.D., Reporter

The regular meeting of the *Essex County Medical Society* was held on December 21, 1950, in conjunction with the Academy of Medicine of Northern New Jersey.

The routine business was quickly disposed of to permit presentation of an excellent scientific program. Dr. Irving Graef, assistant professor of Clinical Medicine at New York University, Bellevue Medical Center gave a scholarly discourse on "Diseases of the Myocardium and Their Implications in Congestive Heart Failure".

Our fourth regular meeting of the season was on January 11, 1951, and the program consisted of a panel discussion on the topic "Community Planning for Health".

Dr. Harrold A. Murray, chairman of the Public Relations Committee, acted as moderator with the following speakers as members of the panel: William H. Hahn, M.D., second vice-president of the Essex County Medical Society and chairman of the Committee on Chronically Ill; Joseph I. Echikson, M.D., past-president of the Essex County Medical Society and chairman of the Cancer Committee; Theodore Isenstadt, executive director, Jewish Family Service Bureau; Charles Messier, executive director, Boy's Club of Newark; Miss Daphne Hughes, executive director, Youth Consultation Service, and Miss Margaret Logie, consultant, State Board of Child Welfare.

Each of these speakers gave thumb-nail sketches of the objectives of the organizations or committees with which they are affiliated, pointing out ways and means of promoting closer cooperation between the social agencies and the physicians. It was stressed that if the doctors would become better acquainted with the services offered by many of the social agencies they would find more opportunities to utilize their assistance and decrease some of their own problems.

A full friendly and free discussion followed the formal panel discussion which served to clarify many real and anticipated issues.

Those present came away with a feeling that we had new friends to assist us in handling some of our social problems, and what assistance we could anticipate.

Certainly this attempt to achieve a closer relationship between the physicians and representatives of the social agencies should be fruitful of a more understanding collaboration and cooperation.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The Homestead Coffee Shop, Woodbury, was the scene of the December 21st meeting of the *Gloucester County Medical Society.* President A. Guy Campo called for committee reports, the most important of which was rendered by Wendell Burkett, M.D. He discussed the transactions which took place at the December 3 Welfare Committee meeting concerning the Physician Resources Committee (formerly Procurement and Assignment). Dr. Burkett stressed the importance of properly filling out and returning the questionnaire cards to the county and state offices.

The scientific portion of the evening was devoted to a most interesting and instructive illustrated lecture given by Albert E. Bothe, M.D., associate professor of Urology, Post-Graduate School of Medicine, University of Pennsylvania, on the subject "Hematuria in General Practice".

Under new business, Dr. Louis K. Collins discussed the Physicians Week-end Emergency Service for the Pitman-Glassboro-Clayton area which has been in force for more than a year. Certain other practitioners sought inclusion in this group of participating physicians. After much discussion, the County Society approved of such an organization as this, stating that the participants should be limited to members of the County Medical Society, and that any additions to the panel should be decided by the members thereof and not the Society as a whole.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

Hudson County Medical Society met in joint session with the Hudson County Dental Society for the first time, on January 2, 1951, at Murdoch Hall, Jersey City Medical Center. Dr. Meyerson, president of the Medical Society, and Dr. Gewirtzman, president-elect of the Dental Society were the presiding officers.

Dr. Meyerson greeted the guest Society and announced that the executive session would be as brief as possible.

Dr. Meyerson transmitted an urgent request from Dr. Aldrich C. Crowe, President of The Medical Society of New Jersey, that members of component medical societies continue their membership in the A.M.A. by payment of the organization's annual dues of $25.00.

On behalf of Dr. Herrman, chairman of the Physician Resources Committee of the State Society, Dr. Meyerson asked that all those who have not returned their classification cards do so at once, explaining that the doctor who fails to fill out his card is really doing himself a disservice.

Dr. Donnelly announced that the revised edition of the Constitution and By-Laws has had a final reading.

As chairman of the 1951 Dinner Committee, Dr. Gleeson announced that the dinner this year will be held April 7, 1951, at the Jersey City Masonic Club.

Dr. James R. Hamilton of Hoboken was elected to membership.

Introduced by Dr. W. J. Gleeson, the guest speaker of the evening was Dr. Hayes Martin, attending surgeon, Memorial Hospital, New York City, and assistant professor of Clinical Surgery, Cornell Uni-

versity Medical College. Dr. Martin discussed *Cancer of the Mouth,* using colored slide illustrations. He emphasized the importance of detecting cancer of the mouth in the earliest stages of the disease, when it is usually amenable to complete cure, and recommended that physicians and dentists make it a practice to suspect any lesion or lump in the oral cavity to be cancer until it is proved benign.

In a discussion from the floor following the lecture, Drs. J. L. Downs, F. J. Houghton, J. W. Spiro, C. B. Kayne, and I. J. Finke, represented the Dental Society, while Drs. B. B. Markowicz and H. J. Perlberg represented the Medical Society. Discussion was brought to a close by Dr. Martin.

MIDDLESEX COUNTY

Martha F. Leonard, M.D., Reporter

The beautifully decorated dining room at Oak Hills Manor was the setting for the regular meeting of the *Middlesex County Medical Society* on December 20, 1950. DR. H. P. FINE, President, extended a welcome to the members of the society and to the Woman's Auxiliary meeting in an adjacent room, suggesting that a joint meeting be held next December. An interesting address by the nationally known commentator, MR. JOHN B. KENNEDY, was the highlight of the evening. Mr. Kennedy discussed the difficult international situation and the steps in its development.

DR. HARROLD MURRAY, First Vice-President of The Medical Society of New Jersey and guest at this meeting, stressed the enduring benefits of unity in the Society's program. He urged active efforts of local civilian defense units and united backing of the educational program against compulsory health insurance.

DR. SAMUEL DERN of Woodbridge and DR. MAX SCHILLER of New York City were advanced to regular membership and DR. WILLIAM D. VAN RIPER of New Brunswick was elected to regular membership by transfer from Bergen County Medical Society.

Dr. Shangold of the Public Health Committee presented a full report of Perth Amboy's elaborate Public Health Week program, which was attended by about 1000 visitors and was enthusiastically received.

The Public Relations Committee chairman, Dr. John Van Mater, reported that all requests of various groups for speakers had been met.

DR. BERKOW, chairman of the Subcommittee on Burns of the Medical Defense Committee commented on the importance of treating minor burns and returning such casualties to activity as early as possible.

The following were elected to office: President: DR. MARSHALL SMITH; Vice-President: DR. CHARLES CALVIN; Secretary: DR. CHARLES CHURCH; Treasurer: DR. GEORGE KOHUT; Reporter: DR. FRANK PARET; Nominating Delegate: DR. ED KLEIN; Alternate: DR. H. P. FINE; Delegates (3 year term): DR. H. P. FINE, DR. JOHN ROWLAND, DR. SOL GURSHMAN, DR. CHARLES HOFFMAN; Alternates: DR. J. KLUFT; DR. L. H. LIEF, DR. W. A. BALOGH, DR. RAYMOND GADEK. Board of Trustees: DR. GEORGE HILKER, chairman, DR. A. BARNHART, DR. E. DUSCHOCK, DR. J. J. LUCEY, DR. IRVIN FINE, DR. H. B. COPLEMAN, DR. C. W. HOFFMAN, DR. SIDNEY SMITH, DR. J. ULAN. Medical Ethics Committee (2 year term): DR. MURRAY JACOBSON, DR. C. E. HESSELTINE.

Dr. Fine summarized the accomplishments of the past year, thanking the officers and committee chairmen for their support. New committees formed were the Medical Defense Committee with subcommittees on burns and one composed of the directresses of nursing of all the hospitals in the county, the General Practitioners Committee, and the Physician Resources Committee. The county's activities at the State Convention were praised, as was DR. IRA SPENCER'S selection as general practitioner of the year. After wishing the members a Merry Christmas and Happy New Year, Dr. Fine turned the chair over to the new president, Dr. Marshall Smith.

Dr. Smith outlined Middlesex County's advanced and well-developed program for civilian defense and urged through Dr. Murray that the State Medical Society appoint regional leaders to provide better coordination between counties. He commended the excellent cooperation of the radio, press, and New Brunswick Physicians Exchange and stated that plans were nearly to the stage of active use.

MONMOUTH COUNTY

Sidney M. Hodas, M.D., Reporter

The regular meeting of the *Monmouth County Medical Society* was held at the Monmouth Memorial Hospital, Long Branch, N. J., on November 29, 1950, DR. SAMUEL EDELSON presiding. The feature of the evening was a paper on "Coronary Disease", presented by DR. DAVID SCHERF, associate professor of Medicine, New York Medical College, Flower and Fifth Avenue Hospital. Dr. Scherf discussed the etiology and treatment of coronary sclerosis.

In response to a request from the State Society, President Edelson submitted the names of Drs. Victor Knapp, William G. Herrman, Theodore Schlossbach and Stanley O. Wilkins for civilian assignments. The positions to be filled are those of Area Chief of Medical Service, Area Chief of Emergency Hospitalization and their deputies.

On recommendation of the membership committee DR. RAYMOND E. JACOBUS of Asbury Park was elected to Associate membership.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on December 19, 1950, at 9 p. m. at the Woman's Club, Paterson. JOHN E. LEACH, M.D., president of the Society, presided at the meeting.

Dr. Leach opened the meeting by informing the members that a committee has been appointed, composed of one representative of each Hospital, to cooperate with the Civil Defense Programs in the communities of Passaic County. Each member

of the committee is to be responsible for the setting up of medical and surgical teams in his hospital and is to coordinate his hospital activities with the local defense program. He also stressed to the members the necessity of paying the building assessment as soon as possible so that the arrangements may be completed. Dr. Leach urged the payment of the A.M.A. dues and informed the members that the representation of The Medical Society of New Jersey in the House of Delegates of the A.M.A. will be based upon the number of paid members of the A.M.A. from this state.

Dr. Leach then introduced the speaker of the scientific session, WILLIAM MACCOMB, M.D., associate attending surgeon at the Memorial Cancer Center in New York, who delivered an illustrated lecture on "Cancer of the Mouth".

SUSSEX COUNTY

Martin I. Kirschner, M.D., Reporter

The winter meeting of the *Sussex County Medical Society* was held on December 12, 1950, with DR. LEO DRAKE presiding. DR. SIGURD W. JOHNSEN, president-elect of the State Society gave a short informative talk on the creation in the State Society of a Judicial Council; he also outlined the functions of such a council. He urged the payment of the A.M.A. assessment for 1951, which affects the number of delegates to represent New Jersey at the A.M.A. meetings.

Most of the evening was devoted to a general discussion of a report on poliomyelitis treatment needs and facilities for Sussex County, submitted by Dr. Spencer. The report was preceded by a talk by Mr. George N. Barrie, the State Director for the Infantile Paralysis Foundation. The Polio Committee was reappointed to work out details for placement and use of mechanical equipment needed in the treatment of this disease. The necessary equipment will be donated by a public service organization in Sussex County, for county use in one of our hospitals, probably in the Newton Memorial Hospital.

UNION COUNTY

E. M. Satulsky, M.D., Reporter

One of the most successful meetings in the history of the *Union County Medical Society* was held on January 10, 1951, at the Elks Club in Rahway. The meeting was called to order by the president, DR. HERSCHEL S. MURPHY, at 8:45 p. m. He extended greetings to the representatives and members of the Union County Bar Association, Union County Dental Society and the Union County Pharmaceutical Association who had been invited to meet with us.

DR. SIGURD W. JOHNSEN brought us greetings and gave a short address which covered our role in civil defense, the new set-up of the scientific sessions at the annual meeting, the Judicial Council, and the necessity of more members paying the A.M.A. dues. Dr. Murphy next turned the meeting over to DR. JACK BLUMBERG who acted as moderator in a symposium on Compensation in relation to Medicine.

Participants in the discussions were JUDGE DANIEL SPAIR, Director of Compensation, Department of Labor of the State of New Jersey, Trenton, who spoke on *Function and Purpose of the Compensation Law;* HON. HARRY S. MEDINETS, Deputy Director of Compensation, Department of Labor of the State of New Jersey, Newark, who spoke on *The Compensation Law;* MR. CARL KUEBLER, Counselor to General Motors Corporation, Jersey City, who spoke on *The Compensation Law in View of the Respondent;* MR. MARIO TURTUR, Attorney, Elizabeth, who spoke on *The Compensation Law in View of the Petitioner.*

The discussion was by DR. WILLIAM K. HARRYMAN, Chairman, Workmen's Compensation and Industrial Health Committee, The Medical Society of New Jersey, Hackensack, and DR. ANDREW C. RUOFF, of the Medical Practice Committee, The Medical Society of New Jersey, Union City.

There was a lengthy and interesting question and answer period which lasted until midnight. Because of the length of the scientific portion of this program no business meeting was held.

COURSES AVAILABLE AT MT. SINAI

The Mount Sinai Hospital, Fifth Avenue and 100th Street, New York 29, New York, announces postgraduate courses in clinical medicine given in affiliation with Columbia University.

Recent Advances in Gynecology, by Dr. M. A. Goldberger and staff. Monday through Saturday, 9 to 12 noon and 2 to 5 p. m. (March 26 to 31, 1951).

Intensive Gastroenterology, by Dr. A. Winkelstein and Staff. Monday through Friday, 9 to 12 noon and 2 to 5 p. m. (April 2 to 6, 1951).

Clinical Neurology, by Dr. I. S. Wechsler and Staff. Monday through Friday, 10 to 1 p. m. and 2 to 5 p. m. (April 9 to 13, 1951).

Symposium in Ophthalmology, by Dr. H. Minsky and members of the Ophthalmological and Medical Staffs. Monday through Friday, 9 to 12 and 1 to 5 p. m.; Saturday 9 to 12 noon. (April 30 to May 26, 1951).

For further information address the Registrar for Medical Instruction, The Mount Sinai Hospital, Fifth Avenue and 100th Street, New York 29, New York.

WOMAN'S AUXILIARY

EXECUTIVE BOARD MEETING

MRS. GEORGE W. IRMISCH, Chairman, Press and Publicity

The meeting of the Woman's Auxiliary to The Medical Society of New Jersey on January 8 was attended by representatives of fifteen of the eighteen counties with organized Auxiliaries. The session was high-lighted by the talk on "Civil Defense" by Dr. Jesse Aaronson of the New Jersey Civil Defense Commission. He brought out that in order to prepare for any eventuality at any time, we need a program integrated with our present health services. Emergencies could include sabotage, chemical warfare, bombing, epidemics, crop destruction, or invasion. Most of these could be met if we would enlarge and organize our public health services, hospitals, laboratory facilities, fire companies, etc. Of these the least adequate are the public health services as there are about 400 of the 570 municipalities in New Jersey without any health officer. The Governor has appointed a local services commission which has a bill being introduced in the Legislature to develop more adequate local health coverage.

The most outstanding report of the state chairmen given at the morning session was that of Mrs. Leo Haggerty, editor of the "New Jersey News-Note". Two thousand copies of this excellent pamphlet were printed and only 54 remained undistributed. Because of the difficulties of addressing these, her committee developed a complete card file containing the name and address of every Auxiliary member, by counties. This file is now with the permanent Archives at the Medical Society offices.

AUXILIARY REPORTS

Atlantic County

Mrs. Samuel L. Winn,
Chairman, Press and Publicity

The December meeting of the *Woman's Auxiliary to the Medical Society of Atlantic County* was held at the Traymore Hotel, December 8, 1950, at 8:45 p. m., Mrs. Clarence Whims, presiding.

The business meeting was very concise and the reports of the various committees brief. However, Mrs. James Mason, III, chairman of the 1-10-20 Plan, was called upon to give a resume of this committee's functions. Mrs. Mason's description of the correlating details and facts involved made her talk most informative and interesting.

Voluntary contributions were collected, and this sum will be used to purchase something appropriate and useful for the benefit of the children in the Betty Bacharach Home for Christmas.

The December session majored in devoting this time to welcome new members. Mrs. David Bew, chairman, had a splendid report, nineteen new members—and a good number of those were present. Each member was openly introduced and a Christmas corsage presented to each new member who attended this meeting.

This also was our Christmas party, with choristers, Santa Claus and reindeer, each lending their part to the entertainment. The Crescendo Club, under the leadership of Mrs. Paul Gillespi, sang traditional carols and seasonal songs. Santa Claus was portrayed by Mrs. James H. Mason III, and her able accomplice, "Rudolph" was Mrs. Allan Rleck. Small gifts were exchanged by the members. This meeting was very well attended. Mrs. Matthew Molitch was chairman of this program, with Mrs. David Bew serving as co-chairman.

Following the entertainment we were joined by the members of the Medical Society who enjoyed refreshments served at the close of the party.

Announcement was made by Mrs. F. Rolfe Westney, chairman of the January meeting, that a talk will be given on interior decorating.

A meeting of the *Woman's Auxiliary to the Medical Society of Atlantic County* was held at the Traymore Hotel, January 12, 1951, Mrs. Clarence Whims, presiding.

The guest speaker of the evening was Mrs. Benjamin Hersohn, who gave an enlightening dissertation on *Interior Decorating*. She displayed materials, emphasizing color correlation, and evaluating numerous methods whereby very pleasing effects could be derived.

Mrs. F. Rolfe Westney gave the report of the card party held in December. It was gratifying to note that the affair was a financial success.

Mrs. Whims stressed the importance of nurse

recruitment. It was decided that the Auxiliary should sponsor an essay contest to stimulate enthusiasm within Atlantic County; the subject of this contest will be "Why I want to Become a Nurse". Mrs. L. M. Walker was appointed chairman of a special committee to carry out these plans. All high schools throughout the county will be contacted, and all girls in the eleventh and twelfth grades will be eligible to enter the contest. Further guidance and aid will be sought from the schools contacted.

"First Aid" was another urgent subject discussed, and volunteers were asked to enroll. A first aid course will be planned, the time and place to be announced as soon as arrangements are completed.

It was announced that Mrs. Whims will give a radio talk, through the courtesy of Station WBAB and the Press-Union Newspapers, on January 16, at 7:00 p. m. The talk, with the approval of Miss Elsie Casperson of the Atlantic City Hospital, is in the interest of nurse recruitment. The speech will be recorded and mimeographed and anyone desiring a copy is asked to contact Mrs. Whims.

Bergen County

Mrs. Winton Johnson, Chairman of Publicity

The regular meeting of the *Woman's Auxiliary to the Bergen County Medical Society* was held on January 9, 1951, in the Nurses' Home at Englewood Hospital, Englewood. Thirty members were present. Mrs. Edward Sexton, president, conducted the business meeting. The report on the Christmas dinner-dance, of which Mrs. Edward Mancene was chairman, showed that it was successful from every point of view, and that 108 persons had attended. Mrs. Matthew Feldman, Membership chairman, reported 112 active members. The resignation of Mrs. Rufus Little from office of president-elect was read and accepted with the greatest regret. It was announced that Mrs. George Hoffman was the chairman for the tea refreshments which were provided for this meeting.

The speaker for the afternoon was one of our own members, Mrs. Stewart Alexander, of Park Ridge, who gave a wonderful account of her experiences as a nurse with the American mobile hospital unit which was sent to England in 1940. This account of the conditions which the American doctors and nurses found in rural hospitals in England, and of the great project that they undertook to help seek out causes of epidemics and to improve the treatment procedure was fascinating. While Mrs. Alexander proceeded on to far greater duties as the administrative head of all the nurses in the European Theatre of Operations, the mobile unit with its 100 beds and epidemiology setup continued to serve in England, and it is still in use under a fellowship grant. Perhaps—in fact, very likely, it is today helping out in the fight against the raging flu epidemic.

The next regular meeting will be held on February 13, at 9 p. m., at Bergen Pines Hospital. The speaker will be Mrs. Pauline Rappaport, who will discuss some aspects of mental hygiene.

For the Auxiliary's Benefit Bridge Party to be held at the Hackensack Woman's Club on March 27, the chairman will be Mrs. Rudolph Schretzmann of West Englewood.

Passaic County

Mrs. Theodore K. Graham, President

The Woman's Auxiliary to the Passaic County Medical Society has a novel and popular plan for getting medical information before the public. Other Auxiliaries would do well to copy their ideas. They use the public library and its branches as places for either a permanent or revolving exhibit. Each local health agency has excellent publicity folders and posters which can be shown with books relating to their subject, that is, March of Dimes, Heart Campaign, Cancer Drive, Diabetes Detection Week, et cetera, Public Health week offers unlimited possibilities for a variety of exhibits.

Displays include timely folders, books and bibliographies of medical books relative to the subject, with special features occasionally of novels, magazines. The display always includes current sketches, poems, plays or articles from current copies of Today's Health. The Passaic County Auxiliary gave subscriptions of Today's Health to every library in the county. A copy of each pamphlet displayed is filed with the librarian so that they are available for anyone writing a paper on some health subject.

This is an excellent example of favorable publicity using existing facilities which no doubt benefits the library, the medical association and the public.

Union County

Mrs. Austin Tidaback, Publicity Chairman

On October 2, 1950, more than 150 members attended the luncheon and fashion show which inaugurated their twenty-fourth season. The fashion show, featuring a variety of autumn and winter fashions designed primarily for late afternoon wear, was presented by Fishman's, Inc., of Elizabeth.

The second meeting was a reception for prospective student nurses at St. Luke's Parish House in Roselle. About 70 high school and junior high school girls attended. Representatives of the four hospital Nurse's Training Schools of Union County were present in their uniforms to talk informally to the girls. The Educational Director of St. Elizabeth Hospital Nurse's Training School spoke on the qualifications and requisites of a good nurse. Dr. Graham Newbury of Summit, representing the medical profession, addressed them on the need for nurses and the various fields open to them.

The third meeting was a membership tea held January 9, 1951, at the Suburban Golf Club in Union. Mrs. Asher Yaguda of Newark, treasurer of the State Auxiliary, addressed the group on the origin of the State Auxiliary and how it has carried through the New Jersey plan for improvement of school health services.

Mrs. Yaguda, a member of the Governor's Commission for the Chronically Ill, said the Auxiliary was doing a tremendous work in this number one public health project.

BOOK REVIEWS

A Textbook of Surgery, by American authors. Ed. by Frederick Christopher. 5th ed. Pp. 1550; with 1465 illustrations. Philadelphia, W. B. Saunders Company, 1949. ($13.00)

A distinguished group of authors has contributed of their special sphere of knowledge to create this new edition of a well-known text. The subject matter is clearly titled and well indexed. As a sourcebook for general surgical subjects, it is authoritative and comprehensive. The print is easy to read and the illustrations are pertinent and numerous. In general, this text represents a thorough presentation of modern surgical thought and methods. It belongs in every surgeon's personal library.

DONALD T. BOSCH, M.D.

Amusing Quotations for Doctors and Patients. Noah D. Fabricant, M.D. Pp. 149. New York, Grune and Stratton, 1950. ($3.00)

When a paragraph has to be labelled "joke", it is probably not very funny. And that's the difficulty with the title of this little book. Seeing it called "Amusing Quotations", the reader waits for the belly laughs. The first "amusing" quotation is the great mirth-provoking adage, "Accidents will happen in the best regulated families". And the last is that old side-splitter "Young men think old men are fools, but old men know young men are fools". Actually the volume does contain some meaty examples of wit, some adroit satire, some top-rate epigrams. But they are not, by and large, classifiable as amusing. Dr. Fabricant has arranged them in various categories — Accident, Adults, Age et cetera, ending with Work, Yawning and Youth. It amazes me that the compiler can find only one single quotation in the entire field of Psychiatry (i.e. "Psycho-analysis is the disease it purports to cure"—very amusing) and only one in Obstetrics, whereas "Blood" and "Legs" rate nine each.

The wits who authored the quotations are listed in an index, and no false modesty keeps Dr. Fabricant from listing himself in company with Alexander Woollcott, William Shakespeare and Ring Lardner. The selections are so varied that every reader is certain to find a few that will tickle him. I suspect that the book will find its greatest use among speakers looking for a pithy saying to spring-board a lecture, or a ringing peroration with which to close one. Other physicians may find it useful in the waiting room, though some of the quotations had better be deleted if the book is to be made available to patients under the sponsorship of a doctor. (For example: "Osteopathy is the greatest scientific gift of God" or "God heals and the doctor takes the fee".) Another use for this volume is to place it on the bath-room shelf where it will help relieve tedium for constipated readers. In fact, there is even an entire section on the subject of "Buttocks". Which, to quote Wilson Mizner, may be something to fall back on.

ULYSSES M. FRANK, M.D.

The Ethical Basis of Medical Practice. Willard L. Sperry, D.D., Paul Hoeber and Company, New York, 1950. Pp. 187. ($2.50)

In this unusual little volume, Dean Sperry brings together the lectures he delivers annually to students at Harvard University's medical school. It is refreshing and interesting to have this intelligent picture of medical ethics, seen from the viewpoint of a mature layman. Dean Sperry recites a number of all-too-common ethical dilemmas, and discusses the basic principles which point the way to an answer. Here too, we find many wise reflections on the art of prognosis, the problem of when not to tell the truth to the patient, the narrowing effects of specialization, euthanasia (Dean Sperry is opposed to it), and the abandonment of patients. The fact that the author is *not* a physician considerably enriches the book, because the writer sees the problem the way the layman does—a point of view to which the doctor is often blind. For example, it is common enough for the specialist to return the dying patient to the family doctor, with the statement "There is nothing more I can do for her". From the physician's viewpoint this is a simple, ethical and necessary act. It comes as a shock to realize that from the layman's point of view, this is sheer abandonment.

Now that the clamorous claims of "Society" (in the abstract) are inching out the claims of the "individual", it is good to have Dean Sperry's vigorous defense of individual worth. The doctor is sometimes tempted to let harm befall the patient in order to accomplish a greater good to society. (For example, Dean Sperry cites the case of a woman dying of hemorrhagic gastritis who needed all of the hospital's meagre supply of Rh negative blood. Denying the blood would have hastened her death. Letting her have the blood would have depleted the bank, and deprived the next Rh negative patient of an only chance for recovery.) But the author emphasizes that our basic duty is care for the individual entrusted to us. The sadistic experiments of the Nazi doctors remind us of what could happen once we allow a vague "good of society" to dictate our decisions. *Facilis descensus Averno.*

HERBERT BOEHM, M.D.

Regional Dermatologic Diagnosis. By Ervin Epstein, M.D. Pp. 328. Philadelphia, Lea & Febiger, 1950. ($6.00)

This is another topographic dermatology text having the laudable purpose of facilitating the diagnosis and treatment of skin ailments by the general practitioner. Since the appearance of the volume by Sabouraud in 1913 the value of this type of arrangement has been questioned by serious students of dermatology, but the busy physician confronted with a "dermatitis mystificata" on one hand and the mammoth tomes of Sutton or Ormsby on the other will grasp at any straw in his dilemma. Hence the recurrent appearance of this variety of book lay-out.

Although the scheme of the work is unoriginal, the author has surpassed his predecessors by surveying the integument under no fewer than thirty sections. The resulting text is marred by repetitiousness and the excessive use of distracting cross-references. If, for example, one wishes to learn all that the author has to say about scabies he must turn to twenty scattered pages. Discussion of etiology and treatment must necessarily be restricted in a book of this nature. The author has done well in giving concise and explicit suggestions as to his personal choice of therapeutic measures. However, under the numerous fragmentary discussions of herpes zoster one might expect at least a passing note on the not uncommon association with other diseases of a more serious nature.

Almost one third of the illustrations are not new; minor errors in proof-reading abound; and the style makes light of the conventions of grammar and composition. Although this book may prove of value on occasions in establishing a diagnosis it cannot replace a systematic survey of dermatology on the doctor's shelf.

M. H. Saffron, M.D.

National Formulary IX. American Pharmaceutical Association, Mack Publishing Company, Easton, Penna., 1950.

The Ninth Edition of the *National Formulary* represents the culmination of four years of planning and work by the members of the Committee on *National Formulary*, the staff of the American Pharmaceutical Association Laboratory, and hundreds of collaborators connected with college, governmental, institutional, and industrial laboratories.

Titles and standards for 155 drugs for which official standards would not otherwise be provided have been added during the recently-completed revision program. Among these new admissions are such drugs and preparations as amobarbital Amytal in several dosage forms, anthralin and anthralin ointment, camphorated parachlorophenol, dehydrocholic acid and tablets, glutamic acid hydrochloride, four liver products for oral use, racephedrine hydrochloride, its tablets and solution, rutin and rutin tablets, undecylenic acid, compound undecylenic acid ointment, zinc undeclenate, and many others.

In addition, formulas and standards are continued in the *National Formulary* for many U.S.P. XIII drugs *not* admitted to U.S.P. XIV. Typical examples of drugs in this category are the following: alum, citrated caffeine, chalk mixture, chloroform liniment and compound effervescent powders.

The *National Formulary*, like the U. S. Pharmacopeia is a legally recognized and official compendium for drugs under provisions of federal, municipal or state food, drug or cosmetic laws. The medical practitioner who has the *Formulary* on his desk, can turn to it at any time and be sure that his prescription calls for just what he wants by its right title and in an available dosage form. The *Formulary* has had so permanent a place in American medicine that it needs no special boost from any reviewer. Like good wine, it needs no bouquet.

Victor Huberman, M.D.

Medical Diagnosis; Applied Physical Diagnosis. (Ed. 2) Edited by Roscoe L. Pullen, M.D.; with 601 figures, 48 in color. Pp. 1119. Philadelphia, 1950. W. B. Saunders Company. ($12.50)

The second edition of *Medical Diagnosis* has been extensively revised and markedly improved. Dr. Pullen, as editor and contributor to this joint work of twenty-three eminent physicians, is to be commended on the careful pruning of unnecessary material. Eight chapters (including military problems and occupational injury) have been entirely deleted. Three new chapters have been added: "The Aged", by Dr. Ernst Boas; "Diseases of the Blood", by Drs. Edward Thomas and Clement Finch; and "The Psychiatric Patient", by Dr. Melvin Thorner. The monograph by Dr. Boas is of particular value and discusses the unusual aspects of diseases as found in old people. The article on the psychiatric patient is not adequate to the subject in that all emphasis is placed merely on the physical findings to be noted in the psychiatric patient. A listing of this nature in no way aids in the diagnosis or understanding of mental pathology. Other changes to be noted briefly include a short review of roentgenographic findings of abdominal diseases, which might well have been omitted, an expansion of the diseases of the eye section by Dr. William Clark, and an unnecessarily detailed discussion of unipolar limb leads.

Medical Diagnosis can be well recommended as an authoritative textbook.

Marvin Shapiro, M.D.

Atomic Attack: A Manual for Survival. By J. L. Balderston and G. W. Hewes. Council on Atomic Implications, University of Southern California, Los Angeles 1950. Pp. 55. ($1.00)

Do you know how to construct a bomb-proof refuge in your own home? It's all blue-printed here, down to the exact size of the beams. It is a bitter tribute to our enlightenment that a book can describe such a project with the casualness of a newspaper column telling the reader how to construct a sun porch. The authors, a physicist and an engineer tell you what to do if you see an atomic fireball while you are walking down the street (you run into the nearest doorway and stand under the arch), how to collapse on the ground so that you protect your eyes, and how to recognize the symptoms of radiation sickness. They tell you what clothes to wear outdoors during an A-bomb alert, how to use a Geiger counter, and how to decontaminate forks that have been exposed to radiation. The entire brochure is written with cold, crisp and clear simplicity, with a strictly-business, no-nonsense, this-is-serious attitude. It is practical from beginning to end. It is hard to believe that we will ever need it: but if we do need advice like this, we will need it badly and need it fast. The saddest words of tongue or pen are surely: "It can't happen here".

Joseph Santangelo, M.D.

VOLUME 48
NUMBER 2

TUBERCULOSIS ABSTRACTS

A Review for Physicians

ISSUED MONTHLY BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV **February, 1951** **No. 2**

WHY DO PATIENTS GO AWOL?

THE physician in general practice, the health officer, the public health nurse, the tuberculosis worker, the patient's family, and, in fact, the whole community has a stake in solving the problems presented by the tuberculous patient who walks out of the hospital against medical advice. What makes him such a difficult problem? We know that the emotional and mental virtues and vices found among the tuberculous are found equally among any other cross-section of the population.

The behavior of the tuberculous patient may be ascribed to three factors (1) what he is inherently as a personality, (2) the effects of the disease upon him individually, and (3) his capacity for enduring the ordeal that everyone knows hospitalization for tuberculosis to be.

The tuberculosis mortality rate in this country has declined dramatically, and tuberculosis is no longer the great killer it once was. New skills have kept alive many of those patients for whom tuberculosis was once fatal. Yet, for the year 1947, tuberculosis was still the first cause of death from diseases in the age group 15 to 34 years. Tuberculosis is still a dreaded disease that terrifies those whom it afflicts. A recent study describes the "psychological black-out" that occurs when the diagnosis of tuberculosis is made known to an individual.

There are other diseases which, like tuberculosis, require long-term hospitalization. There are contagious diseases other than tuberculosis which demand isolation and separation from family. Other diseases have no specific speedy cure. Prolonged bed rest with physical, emotional, and mental relaxation, a negation of normal human tendencies, may be prescribed for patients of various types, including the tuberculous. However, few of man's ills can equal tuberculosis in the degree to which it combines all these devastating characteristics, creating a personal, psychological, and social burden for the individual that is too often overwhelming without outside help and support.

The disease is burden enough. So, too, is the cure. The tuberculous patient must enter an alien environment which separates him from his family and friends. Here he will be reminded daily that he is different, that he cannot have the intimacy and contact with his loved ones that other sick persons may enjoy. He will be expected, for many hours a day, to perform a feat difficult even for the well—to relax physically, emotionally, even mentally. He will have adequate "leisure for brooding". He feels the element of shame and failure that still surrounds tuberculosis. He will be plagued by fear, the one emotion almost universally found among the tuberculous. Fear of the consequences of the disease, fear of the loss of standing and prestige in the family, in the community, in the economic world, fear of surgery, fear of death—these are the attitudes commonly found among the tuberculous.

The tuberculous patient is a difficult problem because his own problem is difficult. His inner resentment will soon express itself in hostility to the attendants, the nurses, and the physician. His family and friends also become subjects of suspicion. It is then that he asks himself—why tolerate it longer? You can rest at home, why not get out? The family needs your help anyhow with domestic and economic problems. You're not making any headway here; you're just another case of tuberculosis. They don't understand. The patient complains about the food, about the lack of attention, about the staff's indifference. He will not take his rest, delights in breaking rules. Finally, he quits and walks out against medical advice. His act is a rebellion against himself and against the authority sanatorium life represents. He must rebel or explode.

Not all tuberculous patients react this way. Those who have internal strengths, or who receive from others the psychological and social supports that hospitalization demands, can pull through and use sanatorium life as an opportunity to plan for a constructive post-hospital career.

Many patients need help. This is attested by the fact that failure of hospitalization, reflected in discharge against medical advice, is found in tuberculosis to a degree unparalleled by any other disease. There may be some who are beyond help. It is difficult to penetrate an embittered outlook or chronic alcoholism that is well aged by the years. For a few, compulsory hospitalization seems the only solution. However, there are more positive and more helpful measures which should be explored before the resort to force.

As a minimum, the tuberculous patient needs emotional and psychological preparation for hospitalization. No one can do this better than the physician. If, at the time of diagnosis, he takes the time to explain the disease and its impact upon the life of the patient and his family, if he expresses interest in the personal and social problems that hospitalization creates and can give the patient assurance and encouragement, the physician will have made a wise and humane investment of energy and effort.

The public health nurse, during her visits to the family, can do much to fortify the patient for the difficult experience ahead. The role of the emotions in tuberculosis and the damage that can be wrought by worry and anxiety should be frankly discussed with the patient by both the physician and nurse. The function of the social worker should be explained and referral to the appropriate social agency should be made where necessary.

In the hospital, a comprehensive treatment program must be followed, introduced by a period of orientation in which the patient is an understanding participant. This means a concern not only for the physical manifestations of tuberculosis, but for the emotional and mental balance of the patient and his outlook for the future.

It is presupposed that the staff will have been taught the emotional and psychological components of illness, of long-term illness in general, and of tuberculosis in particular. In their daily contacts with patients, the staff will be sympathetic and understanding, respecting the patient's integrity, treating him as a mature adult, by their manner and attitudes helping to reinforce him so that the difficult task he faces will be made easier.

Social service should be made available to help the patient with problems that may otherwise rob his energies, retard his recovery, and lead him to reject the hospital. An active rehabilitation program will help the patient to begin planning for a meaningful life ahead.

There is no easy, magic way. The recalcitrant tuberculous patient is a serious problem for society because his disease is a serious problem for him. To the extent that the psychological and social supports are provided, the problem becomes an easier one for the patient and for everyone concerned.

Why Do Patients Go AWOL? William B. Tollen, Ph.D., NTA Bull., July, 1950.

In Bronchial Asthma . . .

"Rectally, Aminophyllin may be given in a dosage of 7½ grains. . . . Rectal instillation of a suppository . . . is of particular value in patients with inaccessible veins."

Halpin, L. J.: An Appraisal of Therapeutic Procedures in Bronchial Asthma, J. Iawa M. Soc. 39:468 (Oct.) 1949.

SEARLE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

AMINOPHYLLIN* SUPPOSICONES®

500 mg. (7½ grains) for rectal administration

nonirritating to rectal mucosa . . . prompt disintegration . . . easily inserted and retained.

Searle Aminophyllin is also available in ampuls, powder and tablets.**

***Uncoated tablets of Searle Aminophyllin bear this identifying imprint—to assure your patients of unvarying quality.*

SEARLE

**Contains at least 80% of anhydraus theophylline.*

G. D. SEARLE & CO. • CHICAGO 80, ILLINOIS

RESEARCH IN THE SERVICE OF MEDICINE **SEARLE**

INFORMATION FOR READERS AND CONTRIBUTORS

The Journal is the official organ of The Medical Society of New Jersey, published monthly under the direction of the Committee on Publication. *The Journal* is released on or about the tenth of each month, and a copy is sent to each member of the Society.

Change of Address: Notice of change of address should be sent promptly to The Medical Society of New Jersey, 315 West State Street, Trenton 8, New Jersey.

Communications: Members are invited to submit to *The Journal* any suggestions for the welfare of the Society, as well as comments or criticisms of any material in *The Journal.* All such communications should be directed to the Editorial Office of *The Journal.* The Publication Committee reserves the right to publish, reject, edit or abbreviate all communications submitted to it.

Contributions: Manuscript submitted to *The Journal* should be typewritten, double-spaced on letter-size (about 8½ by 11 inch) paper, and forwarded to the Editorial Office at the address below. The Publication Committee expressly reserves the right to reject any contributions, whether solicited or not; and the right to abbreviate or edit such contributions in conformity with the needs and requirements of *The Journal.* Galley-proofs of edited or abbreviated manuscripts will be submitted to authors for approval before publication. Every care will be taken with the submitted material, but *The Journal* will not hold itself responsible for loss or damage to manuscripts. Authors are required to submit original copies only, and are urged to keep carbon copies for reference. It is understood that material is submitted here for exclusive publication in this *Journal.*

Illustrations: Authors wishing illustrations for their articles will submit glossy prints or original sketches, from which cuts or plates will be made by *The Journal.* The cost of making such cuts will be borne by the author, who will, after publication, receive the cuts for his own use. The cost of these cuts varies with the size and type of the illustration, but averages about five dollars for a 3-by-3-inch plate. An estimate of the cost will be submitted to authors before the cuts are ordered.

THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY
Editorial Office, 315 West State Street, Trenton 8, New Jersey

POMEROY

EVERYONE knows SOMEONE who wears a POMEROY Frame Truss

The reason is simply because the POMEROY Frame Truss fitted by the POMEROY method retains the hernia completely and comfortably. Both the POMEROY Frame Truss and the POMEROY method of fitting were originated by Daniel Pomeroy nearly a century ago and have never been successfully duplicated.

There's no doubt about it, Doctor. When a truss is indicated you help your patient most when you prescribe a POMEROY Frame Truss.

POMEROY COMPANY, Inc.
901 BROAD STREET, NEWARK 2, N. J.

SURGICAL APPLIANCES

AMERICAN BOARD FOR CERTIFICATION — CERTIFIED

ACCIDENT HOSPITAL SICKNESS

INSURANCE

FOR PHYSICIANS, SURGEONS, DENTISTS EXCLUSIVELY

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL CLAIMS GO TO

$5,000.00 accidental death	**$8.00**
$25. weekly indemnity, accident and sickness	Quarterly
$10,000.00 accidental death	**$16.00**
$50. weekly indemnity, accident and sickness	Quarterly
$15,000.00 accidental death	**$24.00**
$75. weekly indemnity, accident and sickness	Quarterly
$20,000.00 accidental death	**$32.00**
$100. weekly indemnity, accident and sickness	Quarterly

Cost has never exceeded amounts shown.

Also Hospital Policies for Members, Wives and Children at Small Additional Cost.

85c out of each $1.00 gross income used for members' benefit

$4,000,000.00 INVESTMENT ASSETS — **$17,000,000.00** PAID FOR CLAIMS

$200,000.00, deposited with State of Nebraska for protection of our members.

Disability need not be incurred in line of duty—benefits from the beginning of disability.

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

49 years under the same management.

400 First Natl. Bank Bldg., Omaha 2, Nebraska

CONSTANT RESEARCH

Invented in 1861, Hanger Artificial Limbs have been constantly improved over the years. Today, the Hanger Leg is recognized as one of the world's finest artificial limbs.

Hanger Research is continually developing and testing new ideas, new methods, and new materials. From these efforts have come many outstanding achievements, adding greatly to the comfort and to the ever-increasing utility of the limb. Hip control, dural light construction, natural action joints, the flexible foot, are a few of the many advancements of recent years.

The many Hanger companies in many key cities throughout the United States are constantly studying, planning, and developing new improvements to give you an ever better artificial limb.

HANGER ARTIFICIAL LIMBS

334-336 N. 13th St. Philadelphia 7, Pa. — 104 Fifth Avenue New York 11, N.Y.

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET

SITUATIONS, ETC.

$3.00 for 25 words or less: additional words 5c each

CASH MUST ACCOMPANY ORDER

Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

HELP WANTED—Physician. FULL TIME to assist plant doctor. New Jersey license and residence required. Surgical training not essential. State age, training, experience and salary desired. Write Box E, c/o THE JOURNAL.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

FOR RENT—A 3-room, newly built doctor's office. Located in the best section of Teaneck, N. J. Immediate occupancy. For information call Teaneck 6-1187.

FOR RENT—Spacious consulting room with two treatment rooms. Share waiting room and receptionist with certified internist. Desirable location—lower Clinton Avenue, Newark, N. J. Write Box 12, c/o THE JOURNAL.

FOR RENT — Long-established, 100% location drawing resort and year round practice. Five-room suite, furnished or unfurnished, with complete darkroom facilities. Living quarters available if desired. Present tenant being called into Army. Write or phone: Mrs. Maxwell Colby, 133 Chelsea Ave., Long Branch, N. J. Long Branch 6-0489 J.

FOR RENT—Long active physician would help physician or dentist draft exempt, modern offices adjoining his. General work, specialties, center large population New Jersey near New York. Write Box 5, c/o THE JOURNAL.

FOR SALE OR RENT—Deceased physician's office and home combined—established 30 years—corner location—General Practice in growing community—Near Philadelphia and Camden Hospitals. Mrs. Helen L. Hays, 567 Haddon Ave., Collingswood, N. J.

for rapid response
in the pneumonias

Chloromycetin®

98.6

Chloromycetin
(chloramphenicol, Parke-Davis)
is supplied in Kapseals® of 250 mg.,
and in capsules of 50 mg.

PARKE, DAVIS &

lobar pneumonia with bacteremia

"After initiation of Chloromycetin therapy the temperature returned to normal within forty-eight hours, and prompt subsidence of the cough and chest pain occurred."[1]

bronchopneumonia

"Clinically, the child improved rapidly and was out of the oxygen tent in 24 hours and afebrile in 36 hours."[2]

primary atypical (virus) pneumonia

"On the first evening of Chloromycetin treatment the subjective symptoms were less severe, and within 24 hours his fever began to settle."[3]

Chloromycetin is effective against practically all pneumonia-causing organisms. Response is strikingly rapid, temperature drops, the lungs clear... and your patient is convalescent.

Chloromycetin is unusually well tolerated. Side effects are rare, severe reactions almost unknown.

Bibliography

1. Hewitt, W. L., and Williams, Jr., B.: New England J. Med. *242*:119, 1950.
2. Recinos, Jr., A.; Ross, S.; Olshaker, B., and Twible, E.: New England J. Med. *241*:733, 1949.
3. Wood, E. J.: Lancet 2:55, 1949.

COMPANY

MEDICAMENTA VERA

P & CO.

"Truth never grows old" *Thomas Fuller, 1639*

With the passing years, ideas, theories and conceptions may change with new discoveries and growing knowledge.

But truth never grows old.

No matter how widely the pendulum may swing, *truth* remains the center of its path.

Because of its inherent soundness, Dextri-Maltose® is the carbohydrate of choice in more hospitals than ever before. It enjoys the confidence of ever-growing thousands of physicians.

And the physician who prescribes Dextri-Maltose in infant feeding follows a course confirmed by a great mass of evidence, for no other carbohydrate enjoys so rich and enduring a background of authoritative clinical experience.

However the pendulum may swing, facts remain facts, and truth never grows old.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

ANNUAL MEETING—MAY 14, 15 and 16, 1951—HADDON HALL, ATLANTIC CITY

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879.

VOL. 48, NO. 3 MARCH, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 91 to 136

Roster of Officers, Advertising page 3A

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*.....Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

MEAT...and the ANABOLIC PROCESSES

Providing generous amounts of complete protein essential to the anabolic processes of the human organism, meat is an outstanding protein food for maintaining not only nitrogen equilibrium but also positive nitrogen balance in the patient.

Only in the past two decades has been established the full significance of adequate protein nutrition for supporting the anabolic processes of the organism in physiologic stress.[1] The healing of all types of wounds, repair of regenerating parenchymal organs, detoxification, maintenance of normal fluid balance between the various compartments of the body, growth of replacement tissue in extensive burns, rapid manufacture of antibodies, normal phagocytic response, upkeep of the erythrocyte mass and plasma protein, and support of the enzyme systems are but some of the physiologic processes dependent upon the state of protein nutrition in the patient.

Due to the almost complete absorption of the digestion products of meat protein and its excellent indispensable amino acid balance, the protein of meat participates efficiently in the synthesis of new tissue protein. On the other hand, studies in liver regeneration after partial hepatectomy have shown that incomplete proteins of vegetable origin, fed alone, do not increase the protein of the impaired liver any better than a diet containing no protein.[2]

The high content of biologically complete protein, however, is not the only reason for including liberal amounts of meat in the dietaries of patients requiring a high protein intake. Meat is also an important rich source of iron and valuable amounts of essential vitamins—thiamine, riboflavin, and niacin, and the newly discovered vitamin B_{12} which, among its several functions, promotes the most efficient utilization of protein.

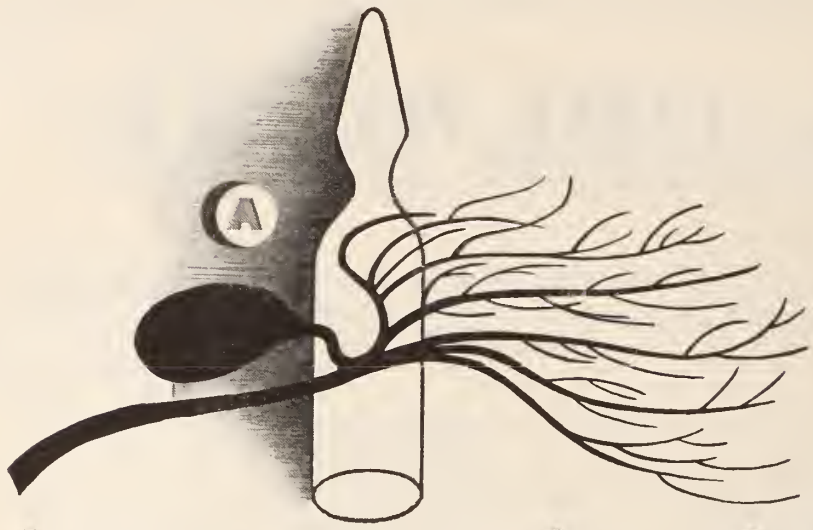
(1) Ravdin, I. S., and Gimbel, N. S.: Protein Metabolism in Surgical Patients, J.A.M.A., 144:979 (Nov. 18) 1950.

(2) Vars, H. M., and Gurd, F. N.: Role of Dietary Protein in Experimental Liver Regeneration in Nitrogen Balance Study, Am. J. Physiol., 151:391 (Dec.) 1947.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

American Meat Institute

Main Office, Chicago...Members Throughout the United States



in biliary tract disorders

Hydrocholeresis with *Decholin* and *Decholin Sodium* produces a gentle lavage of the biliary tree. Copious, fluid bile flushes away mucus, pus and thickened bile and re-establishes normal drainage.

for best results

Hydrocholeretic therapy should be extended through the optimal treatment period. An *average* dose of *Decholin* is 1 or 2 tablets three times daily for four to six weeks Prescription of 100 tablets is recommended for maximum efficacy and economy. The course may be repeated after an interval of one or two weeks if desired. For more rapid and intensive hydrocholeresis, therapy may be initiated with *Decholin Sodium.*

DECHOLIN

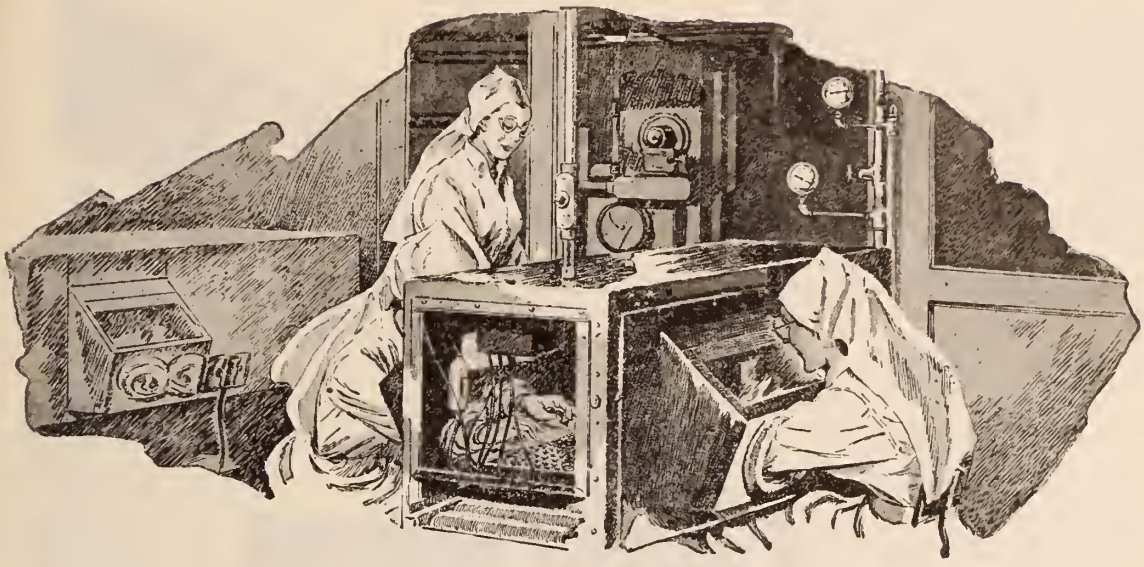
Decholin tablets (brand of dehydrocholic acid) of 3¾ gr. (0.25 Gm.), in bottles of 100, 500, 1,000 and 5,000.

Decholin Sodium (brand of sodium dehydrocholate) is supplied in a 20% solution for intravenous administration. 3 cc., 5 cc. and 10 cc. ampuls — boxes of 3, 20 and 100.

Decholin and *Decholin Sodium*, trademarks reg.

AMES COMPANY, INC · ELKHART, INDIANA

Ames Company of Canada, Ltd., Toronto



AUREOMYCIN

Hydrochloride Crystalline

Lederle

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases

Every precaution against contamination and every device that will safeguard the quality and sterility of the content of aureomycin in vials for research parenteral use has been adopted in the sterile filling rooms at our Pearl River laboratories. Rigid aseptic technique surrounds the filling process. The actual filling takes place in a stainless steel tunnel equipped with ultraviolet lights. No human hand takes part at any stage, until the plugs are inserted in the vials. Plugging is done inside an ultraviolet irradiated chamber with only the sterile-gloved hand of the operator inside.

Aureomycin is now available in a number of convenient forms, for use locally and by mouth. New forms of this antibiotic of unsurpassed versatility are constantly being perfected.

Capsules: *Bottles of 25, 50 mg. each capsule. Bottles of 16, 250 mg. each capsule.*
Ophthalmic: *Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.*

LEDERLE LABORATORIES DIVISION AMERICAN CYANAMID COMPANY 30 Rockefeller Plaza, New York 20, N. Y.

standard references all

Companion to their other constantly-referred-to works (and considered virtually as indispensable) are the Picker X-Ray Accessory Catalogs on thousands of doctors' bookshelves.

This catalog has long been a standard reference for materials used in radiography, fluoroscopy, and radiation therapy . . . probably the most complete source book for x-ray accessories extant. Its two hundred pages embrace not only Picker-made products, but a host of others gathered from all over the world, and offered under the Picker guarantee. The wide range of the collection is evidence of our ceaseless search for better ways to serve you.

PICKER X-RAY CORPORATION
300 FOURTH AVENUE, NEW YORK 10, N. Y.

Picker x-ray

all you expect . . . and more

NEWARK 2 *(Northern)* **N. J.**, 972 Broad Street
MAPLEWOOD, N. J., 17 Van Ness Court
MATAWAN, N. J., 54 Edgemere Drive

PHILADELPHIA 4 *(Southern)* **PA.**, 103 S. 34 Street
NUTLEY, N. J., 226 Hillside Avenue
WALDWICK, N. J., 9 MacDougal Court

The "estrogen preferred by us is 'Premarin,' a mixture of conjugated estrogens, the principal one of which is estrone sulfate."

Hamblen, E. C.: North Carolina M. J. 7:533 (Oct.) 1946.

In treating the menopausal syndrome with "Premarin," Perloff* reports that "Ninety-five and eight tenths per cent of patients treated with 3.75 mg. or less daily obtained complete relief of symptoms"; also, "General tonic effects were noteworthy and the greatest percentage of patients who expressed clear-cut preferences for any drug designated 'Premarin.'"

Thus, the sense of "well-being" usually imparted represents a "plus" in "Premarin" therapy which not only gratifies the patient but is conducive to a highly satisfactory patient-doctor relationship.

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg. and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

*Perloff, W. H.: Am. J. Obst. & Gynec. 58.684 (Oct.) 1949.

"PREMARIN"®

"Premarin" contains estrone sulfate plus the sulfates of equilin, equilenin, β-estradiol, and β-dihydroequilenin. Other α- and β-estrogenic "diols" are also present in varying amounts as water-soluble conjugates.

Estrogenic Substances (water-soluble) also known as Conjugated Estrogens (equine)

Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.

Ayerst

5003 R

IN UPPER RESPIRATORY INFECTIONS

prompt response

in acute laryngotracheal bronchitis

CASE	DIAGNOSIS	INFECTING ORGANISM	DAYS TREATED	TOTAL DOSE GM.	ADMINISTRATION	CONDITION AND RESULT
16	Acute laryngo-tracheal bronchitis	Hemophilus influenzae	3	12	oral	Marked improve-ment in 24 hours. Recovery

Case report taken from Herrell, W. E.; Heilman, F. R., and Wellman, W. E.: Ann. New York Acad. Sc. 53:448 (Sept. 15) 1950.

CRYSTALLINE

Terra

prompt response

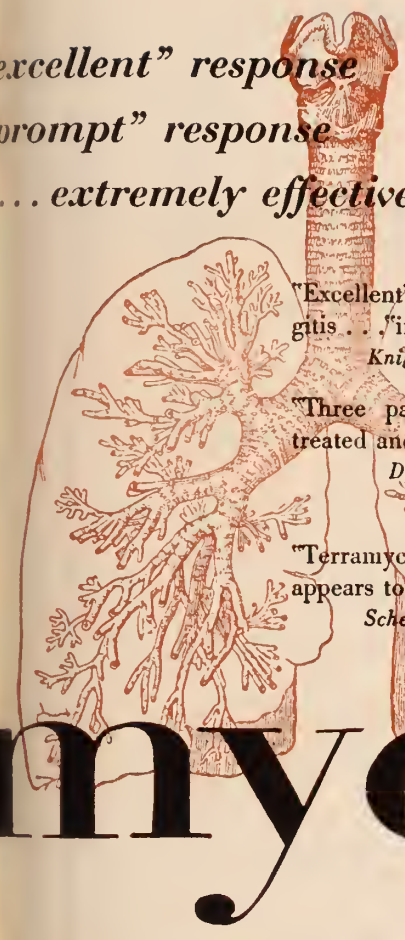
in acute follicular tonsillitis

CASE	DIAGNOSIS	CULTURE		DAILY DOSE GM.	NUMBER OF DAYS TREATED	RESULT
		SOURCE	ORGANISM			
29	Acute follicular tonsillitis	throat	Strepto-coccus pyogenes	4	3	Prompt clinical response. No fever after 24 hours of treatment

Case report taken from Herrell, W. E.; Heilman, F. R.; Wellman, W. E., and Bartholomew, L. A.: Proc. Staff Meet., Mayo Clin. 25:183 (Apr. 12) 1950.

Antibiotic Division Pfizer

"excellent" response
"prompt" response
"... extremely effective" *in acute pharyngitis*



"Excellent" results in 3 treated cases of streptococcic pharyngitis . . ."improved promptly following terramycin therapy."
Knight, V.: New York State J. Med. 50:*2173 (Sept. 15) 1950.*

"Three patients with beta-streptococcic pharyngitis were treated and made a prompt recovery."
Dowling, H. F.; Lepper, M. H.; Caldwell, E. R., and Spies, H.: Ann. New York Acad. Sc. 53:*433 (Sept.) 1950.*

"Terramycin (250 mg. every three hours) when given orally appears to be extremely effective."
Schenck, H. P.: M. Clin. North America 34:*1621 (Nov.) 1950.*

mycin

HYDROCHLORIDE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Dosage: On the basis of findings obtained in over 150 leading medical research centers, 2 Gm. daily by mouth in divided doses q. 6 h. is suggested for most acute infections. In severe infections a high initial dose (1 Gm.) or higher daily doses (3 to 6 Gm.) should be used. Treatment should be continued for at least 48 hours after the temperature is normal and acute symptoms subside.

Supplied: 250 mg. capsules, bottles of 16 and 100;
100 mg. capsules, bottles of 25 and 100;
50 mg. capsules, bottles of 25 and 100.

CHAS. PFIZER & CO., INC., *Brooklyn 6, N. Y.*

When it is established that the offending agent in infantile allergy is cow's milk, good nutrition can still be maintained with a milk replacement. Hill recommends, in true milk allergies, a milk-free food such as Mull-Soy, since there are "so many crossed reactions" between the proteins of cow's and other animal milks.*

Mull-Soy is the nutritional replacement of choice for patients, *young or old,* who display a true allergy to animal milks. Mull-Soy supplies (in standard 1:1 dilution) essential protein, fat, carbohydrate and minerals in values comparable to those of cow's and goat's milk. The fat in Mull-Soy is soy oil which is a good source of unsaturated fatty acids and which does not form volatile fatty acids in the intestinal tract.

Mull-Soy is a liquid, palatable, homogenized (vacuum packed) food —easy to take, easy to prescribe. Available in drugstores in 15½ fl. oz. tins.

*Hill, L. W.: New England J. Med. 242:288, 1950

MULL-SOY®

first in hypoallergenic diets for infants, children and adults

The **Borden** *Company*

Prescription Products Division • 350 Madison Avenue, New York 17

SIMPLE TEST PROVES *INSTANTLY*

PHILIP MORRIS ARE LESS IRRITATING

*Now you can confirm for yourself, Doctor, the results of the published studies**

HERE IS ALL YOU DO:

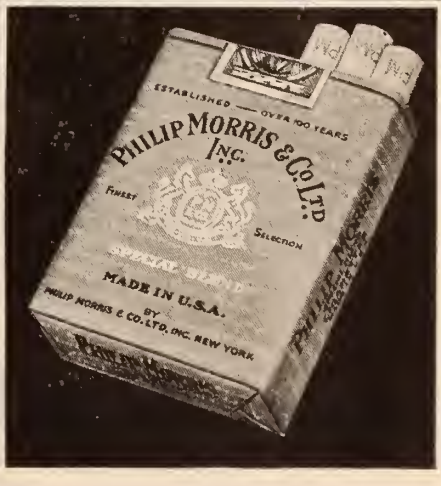
1 . . . light up a PHILIP MORRIS

Take a puff — DON'T INHALE. Just s-l-o-w-l-y let the smoke come through your nose. AND NOW

2 . . . light up your present brand

DON'T INHALE. Just take a puff and s-l-o-w-l-y let the smoke come through your nose. Notice that bite, that sting? Quite a difference from PHILIP MORRIS!

With proof so conclusive . . . with your own *personal experience* added to the published studies* . . . would it not be good practice to suggest PHILIP MORRIS to your patients who smoke?



PHILIP MORRIS

Philip Morris & Co., Ltd., Inc., 100 Park Avenue, New York 17, N. Y.

**Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245; N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592; Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60*

Of all smells, bread;
Of all tastes, salt.

George Herbert (1640)

The liking for salt—and plenty of it—is particularly common to Americans.

"The average American diet contains a daily intake of 6 to 15 Gm. of salt... And the effective, true low sodium diet will possess less than 2 Gm."

When sodium restriction must be imposed, the desired "salty tang" can be given to foodstuffs with

NEOCURTASAL®

Salt without Sodium

"Most patients favor this product."[2] Neocurtasal imparts a crisp flavor to vegetables, eggs and other foods—encouraging the patient to continue on a low sodium diet.

Neocurtasal is a completely sodium free seasoning agent, which looks and is used like ordinary table salt.

CONSTITUENTS: Potassium chloride, ammonium chloride, potassium formate, calcium formate, magnesium citrate and starch. Potassium content 36%; chloride 39.3%; calcium 0.3%; magnesium 0.2%

Available in convenient 2 oz. shakers and 8 oz. bottles.

Write for pad of Low Sodium Diet Sheets.

Winthrop-Stearns INC.
NEW YORK 18, N. Y. WINDSOR, ONT.

Neocurtasal, trademark reg. U. S. & Canada

1. Dennison, A.D.: *Jour. Med. Soc. New Jersey*, 46:139, Mar., 1949.
2. Saslaw, M.S.: *Jour. Florida Med. Assn.*, 34:657, May, 1948.

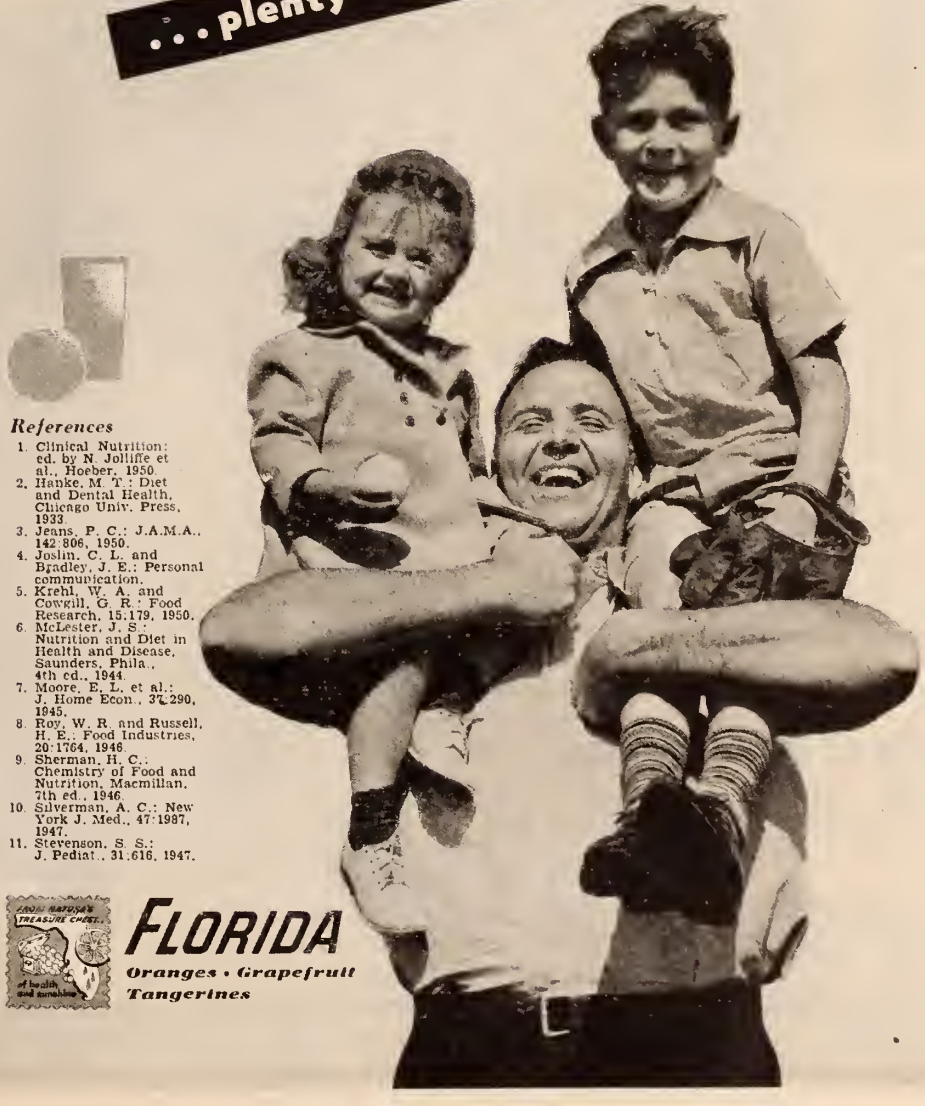
they deserve the best . .

Implicit in a happy healthy childhood is maximal nutrition—and one of the essential dietetic guideposts to vigorous adulthood is adequate vitamin C[1,2,9] (¼-4 oz. for infants up to 1 year;[10,11] 4-8 oz. for older children).[4] Fortunately, most every youngster likes the taste of Florida orange juice and the "lift" its easily assimilable fruit sugars* provide.[6] It is well-tolerated and virtually non-allergenic.[3] And, under modern techniques of processing and storage—it is possible for citrus fruits and juices (whether fresh, canned or frozen) to *retain their ascorbic acid content,[5,8] and their pleasing flavor,[7] in very high degree and over long periods.*

FLORIDA CITRUS COMMISSION • LAKELAND, FLORIDA

Citrus fruits — among the richest known sources of Vitamin C — also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.

. . . plenty of citrus fruit



References

1. Clinical Nutrition: ed. by N. Jolliffe et al., Hoeber, 1950.
2. Hanke, M. T.: Diet and Dental Health, Chicago Univ. Press, 1933.
3. Jeans, P. C.: J.A.M.A., 142:806, 1950.
4. Joslin, C. L. and Bradley, J. E.: Personal communication.
5. Krehl, W. A. and Cowgill, G. R.: Food Research, 15:179, 1950.
6. McLester, J. S.: Nutrition and Diet in Health and Disease, Saunders, Phila., 4th ed., 1944.
7. Moore, E. L. et al.: J. Home Econ., 37:290, 1945.
8. Roy, W. R. and Russell, H. E.: Food Industries, 20:1764, 1948.
9. Sherman, H. C.: Chemistry of Food and Nutrition, Macmillan, 7th ed., 1946.
10. Silverman, A. C.: New York J. Med., 47:1987, 1947.
11. Stevenson, S. S.: J. Pediat., 31:616, 1947.

FROM NATURE'S TREASURE CHEST... of health and sunshine

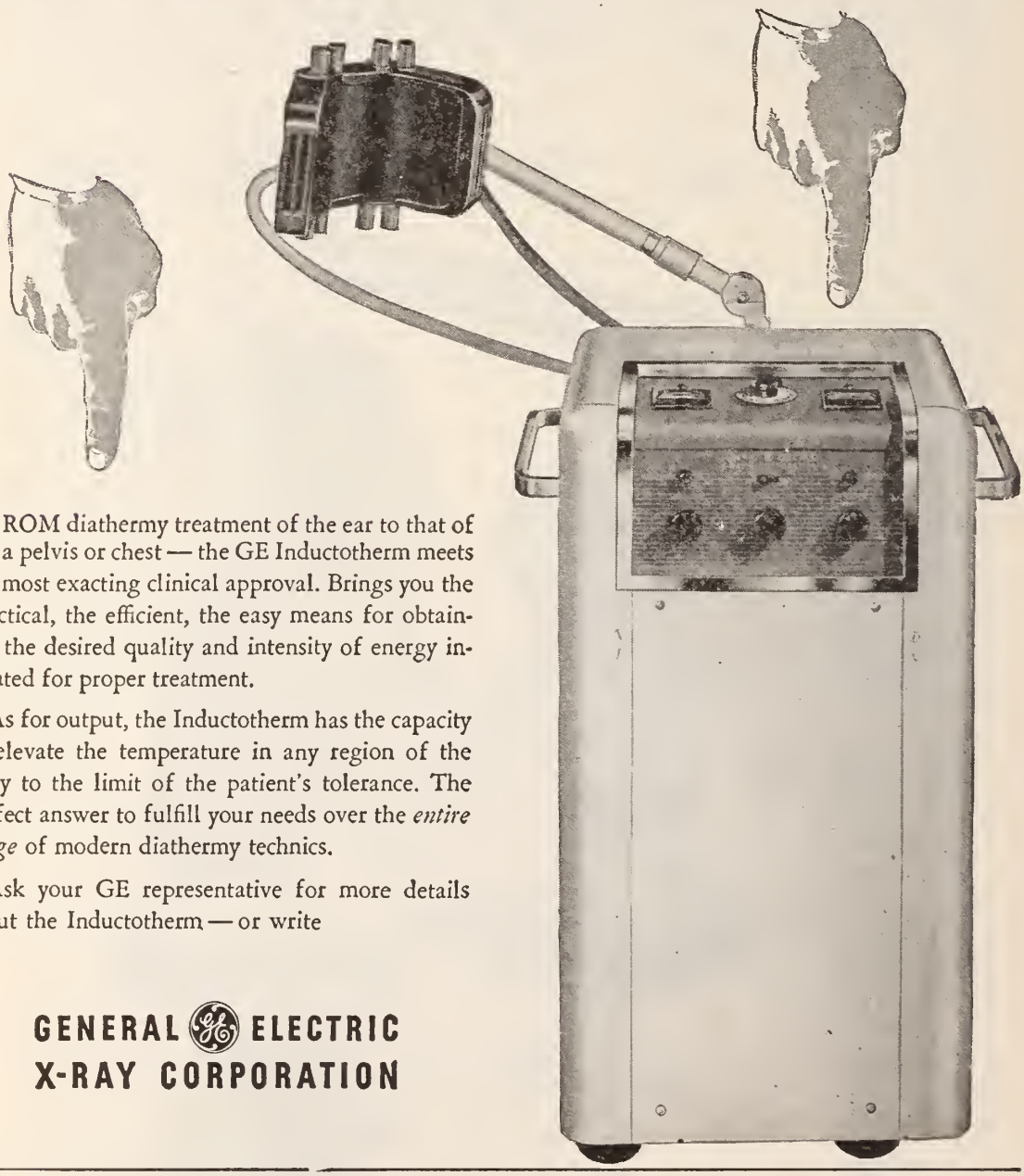
FLORIDA

Oranges • Grapefruit

Tangerines

Meets every requirement for all diathermy technics...

the GE INDUCTOTHERM



FROM diathermy treatment of the ear to that of a pelvis or chest — the GE Inductotherm meets the most exacting clinical approval. Brings you the practical, the efficient, the easy means for obtaining the desired quality and intensity of energy indicated for proper treatment.

As for output, the Inductotherm has the capacity to elevate the temperature in any region of the body to the limit of the patient's tolerance. The perfect answer to fulfill your needs over the *entire range* of modern diathermy technics.

Ask your GE representative for more details about the Inductotherm — or write

GENERAL ELECTRIC X-RAY CORPORATION

Direct Factory Branches:

NEWARK — 10 Third Street

PHILADELPHIA — 1624 Hunting Park Avenue

the advantages of

SULAMYD®

(sulfacetimide)

in

prophylaxis

and therapy

of

urinary tract infections

high
- pathogen specificity
- antibacterial activity
- urinary concentration
- urinary solubility

low
- systemic toxicity
- renal risk

dosage: Therapeutic—2 tablets (1 Gm.) t.i.d.
Prophylactic—1 tablet (0.5 Gm.) t.i.d.

Schering CORPORATION · BLOOMFIELD, NEW JERSEY

SULAMYD

SCHERING

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 559

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month

VOL. 48, No. 3 MARCH, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

MEET YOUR EXECUTIVE OFFICER

Challenge is often the goad to greatness. Therefore it is inspiriting to me to have the privilege of identifying myself with the members of the medical profession of New Jersey in these most challenging times.

The challenge which confronts us today is both old and new. It is old in that it demands that we of this generation personally demonstrate — as did those who have gone before — our right to the grateful and affectionate esteem of the individuals and the communities whom we serve. It is new in that it calls upon us to win popular approbation for the system of medical practice that now exists, or to suffer its irreparable and baneful modification.

Medicine is an embattled profession today, and we who glory in the chronicles of its splendid achievements and look with exultant confidence to the realiza-

tion of still greater benefits for all mankind are happy to fight for its preservation. For fight we must—not just some of us but all of us—not only as doctors but also as free citizens of the sole remaining great free country in the world.

For, in Patrick Henry's phrase, "it is a question of freedom or slavery" that confronts us. Two enemies there are with whom we must deal: unprincipled barbarians who would enslave us from without, and more sinister villains who would enslave us from within. It is the members of the second group against whom we must exercise the greater vigilance, for they are trained in treachery—"breathing like sanctified and pious bawds, the better to beguile"!

In this fight there can be no straddling, no compromise. Every man must make his vigorous choice. Passivity in the cause of liberty is tantamount to cowardice. Only the brave deserve to be free.

These are the concepts which we must all embrace if as citizens and members of the medical profession we are to do our duty. These are the attitudes which we must adopt if we are well to serve Medicine and America.

In this spirit of dedicated service, pledged to the elimination of all elements of corruption and evil from our professional and civic life and to the preservation of all that is good, I offer myself as your co-worker in the pursuit of the common good. May the worth of our cause and the love of our country be our inspiration and strength. May a happier, freer, and more self-reliant America eventually be the fruit of our victory.

Richard I. Nevin,
Executive Officer.

THE DECLARATION OF GENEVA

Many doctors do not know it, but there actually is an international code of ethics. In fact, there are two of them,* both adopted by the World Medical Association. One, the Declaration of Geneva reads as follows:

1. I solemnly pledge myself to consecrate my life to the service of humanity.

2. I will give to my teachers the respect and gratitude which is their due;

3. I will practice my profession with conscience and dignity;

4. The health of my patient will be my first consideration;

5. I will respect the secrets which are confided in me;

6. I will maintain by all the means in my power, the honor and the noble traditions of the medical profession;

7. My colleagues will be my brothers;

8. I will not permit considerations of religion, nationality, race, party politics, or social standing to intervene between my duty and my patient;

9. I will maintain the utmost respect for human life, from the time of conception; even under threat, I will not use my medical knowledge contrary to the laws of humanity.

10. I make these promises solemnly, freely, and upon my honor.

As with the Hippocratic oath, we sometimes take such declarations as a sort of empty formalism, a mumbo jumbo of words without music. But in times of crisis, these noble phrases seem to leap into vitality. Thus, when the doctor today resists going into defense service (whether civilian or military) he should think of pledge number 1, above. When he feels impelled to tell the staff-room of the important person who came

*The International Code of Ethics is reprinted on page 122 of this issue.

to his office yesterday, let him think of number 5. If ever the time should come when a dictatorial government orders him to experiment on, or put to death those of an alien creed, let him in his own heart, repeat the eighth covenant; or the ninth. The creed is short, but like the Golden Rule, it is a capsule of conduct, the following of which will ever reflect the glory of the profession of healing.

THE STUDENT A. M. A.

It is surprising that no one ever thought of it before. At long last a medical students' A.M.A. has been organized. During the last Christmas holiday season, representatives from 48 medical schools met to form a Student American Medical Association. Objectives of the organization are: advancement of medicine; contribution of the welfare and education of medical students; familiarization of its members with the purposes and ideals of the medical profession, and preparation of its members to meet the social, moral and ethical obligations of the profession.

The association will be made up of academic societies in medical schools of the United States. Each society, not more than one at any school, must have a membership of at least one fourth of the students, or 85 students, whichever is the smaller.

An advisory committee to each constituent society will be composed of the dean of the school; two faculty members elected by the students; a county medical society representative and a state medical society representative.

The student house of delegates has named its president and vice-president as representatives to the A.M.A. House of Delegates. A change in the constitution of the A.M.A. to provide such representation is expected to become effective at the annual meeting in New Jersey this summer.

This project has many implications. Along with the Medical Education Foundation, it tokens our profession's further recognition of responsibility for more active over-all participation in the training of doctors. It assures a better continuity in medical tradition. While schools have been very successful in transmitting medical science to undergraduates, they could not be expected to transmit much in the way of a feeling for the organizational and social aspects of medicine. Few schools have courses in ethics; and such courses tend to be sterile because they are taught quite outside the context of everyday medical practice. Here the new Association can be especially helpful.

College days are often periods of the experimental radicalism of immaturity. It is, perhaps, natural for the young mind, just freed from its dependence on parents, to express its new emancipation by rebellion. But in these days it is well for the plastic minds of youth to be exposed to the conservative values of the *status quo;* not by way of compelling conformity, but simply in order to offer youth both sides of the story. Because every college is an intellectual incubator there is—and perhaps quite properly—a good deal of flirting with strange ideas as well as hearty devotion to strange ideals. Into this arena the new Student A.M.A. can come, well prepared to counterbalance those forces which might feed the students some of these strange ideas. Thus offered both sides, the medical student can make his choice. We need not be afraid of the outcome in any honest battle of ideas.

ORIGINAL ARTICLES

CARCINOMA OF THE BREAST*

CERTAIN ASPECTS OF A FIVE-YEAR EXPERIENCE IN A GENERAL HOSPITAL

John L. Work, M.D., Montclair, N. J.

A review of the surgical specimens removed from patients with carcinoma of the breast and submitted to the laboratory of the Mountainside Hospital during the five-year period ending in 1949 was begun for the purpose of ascertaining the incidence of lymph node metastasis in patients who had been subjected to radical mastectomy. It was not our intention to clutter up the literature with a statistical report on a small series of cases, but rather to find out whether we were doing our job as we should.

Most of the studies reported heretofore have come from the large teaching centers. Yet of the persons with mammary cancer, the number treated in small and medium-size, general hospitals like our own is considerable. Such merit as there may be in attempting to sample this experience is our justification for the following presentation.

In the five-year period beginning January first, 1944, a positive diagnosis of carcinoma of the breast was made on surgical specimens from 165 patients. Borderline lesions (regardless of the final recommendation to the surgeon) were not included in this figure. In 14, the primary diagnosis was made on material obtained from local or distant metastases, and the patients were not subjected to further surgery. In 22 the age, physical condition or extent of the disease militated against radical operation, and only simple mastectomies were performed. On the remaining 129 patients (3 of whom had or subsequently developed bilateral disease) 132 radical mastectomies were performed. It is this material which serves as the basis for this report.

The pathologist's participation in the management of the cases varied. In 11 cases, biopsies (some of which were made in the physicians' offices) were sent to us prior to scheduling the mastectomy. In 85 cases we were privileged to consult with the surgeon in the operating room and made frozen sections when the gross appearance of the lesion was at all equivocal. In the remaining 36 cases, the clinical features of the disease, including a tumor of large size, skin fixation, nipple retraction and/or palpable lymph node involvement, were such that preliminary pathologic studies were not necessary. The final specimens were fixed in formalin and examined on the day of the operation.

The breast and pectoral muscles were sliced in the vertical direction, and the fat from the upper border and the axillary tail was sectioned every 3 to 5 millimeters, and carefully palpated for lymph nodes. Blocks were taken from the tumor, from the nipple and usually from the surrounding breast tissue. All lymph nodes found were embedded and sectioned unless they were involved grossly, in which event only one or two sections were taken for confirmation.

The number of lymph nodes found was recorded in 104 cases, including three in which no lymph nodes were discovered even after meticulous examination. In one case "few" were said to have been present, and in the remaining 27 specimens the number was reported as "multiple" or "numerous". All of the latter showed extensive gross involvement. The number of nodes found in the 104 cases varied from none in the three cases to 20 in one case. Five or more were found in about 70 per cent of the cases, and the average for the 104 cases was six nodes per specimen. There was only a slight difference between the averages for the involved and the uninvolved cases. This lack of difference is of no significance, however, for the reason that the 27 positive cases with "multiple" or "numerous" nodes could not be included in the computation.

How many lymph nodes should the pathologist find? The number is variable. Our failure

* Read before the Section on Clinical Pathology of The Medical Society of New Jersey, May 24, 1950. This material is from the Mountainside Hospital in Montclair.

1. Saphir, Otto, and Amromin, George D.: Cancer, 1:238 (1948).

to demonstrate nodes in three of the cases probably indicates an inadequate dissection of the axillae of these patients. Saphir and Amromin[1] reported a painstaking study of 30 cases that on routine examination had been reported uninvolved. They restudied their material and made serial microscopic sections of all nodes found. They reported 149 nodes in the 30 cases. Their average for the group was five nodes per case, which compares with our figure of 5.7 for the uninvolved cases.

In our 132 specimens, lymph node metastases were demonstrated in 78 specimens or 59 per cent. This compares with the figures of 67 per cent computed by Harrington[2] on a series of 3740 cases treated at the Mayo Clinic from 1910 to 1930. Saphir and Amromin[1] have emphasized the fact that single sections do not always include minute metastases. However, the impracticality of their suggestion (that serial sections be made) becomes apparent when one considers that more than 2000 sections would have to be prepared and examined in the work-up of the average case.

Appreciating fully the dubious value of deductions from a small series of cases we attempted a breakdown of our material according to age, location, size and the degree of histologic differentiation assigned to the tumor.

AGE

The youngest patient was 31 years old, and the oldest subjected to radical mastectomy was 79. Average age was 55.5. Sixty per cent of the patients were operated upon during the sixth and seventh decades of life. The incidence of lymph node metastasis in the whole group was 59.1 per cent. The incidence figures for each of the several age groups were as follows: 30 to 39 years—38.5 per cent; 40 to 49 years—57.7 per cent; 50 to 59 years—63.2 per cent; 60 to 69 years—60 per cent; and 70 to 79 years—60 per cent. The low incidence of metastasis in patients 30 to 39 years is noteworthy. This seems contrary to the concept that mammary cancer in the young offers a distinctly poor prognosis. This is not necessarily true for the reason that the low incidence of lymph node involvement found in this group indicates ony that these patients were operated upon relatively early in the course of their disease. Several explanations may be offered for this. Young women are more conscious of abnormalities in their breasts than older subjects. The young have profited more than the old from the educational campaigns directed toward the control of cancer. In the groups fifty years and above there appears no correlation between age and incidence of lymph node metastasis.

SITE

There was equal distribution of the 132 tumors between the right and left breasts, and equal incidence of metastasis in the two groups. We analyzed the distribution of the tumors in relation to the nipple and in the medial and lateral hemispheres of the breast. The values 16 per cent, 60 per cent and 24 per cent for the medial, lateral and central areas respectively correspond to the 18, 60 and 22 figures obtained by Geschickter[3] in a study of 1000 cases. There was very little difference in the incidence of metastasis in the three groups.

SIZE

Four of the tumors measured less than 1. centimeters in diameter, and the largest, which involved the entire breast, measured 10 centimeters across One-half of the tumors measured less than 3. centimeters in diameter. In general there was a positive correlation between the size of the tumor and the incidence of lymph node metastasis. There were positive nodes in only 25 per cent of the cases in which the tumor measured less than 1. centimeters in diameter, whereas all tumors over 6. centimeters had metastasized. It should be noted, however, that even one of the smallest lesions, which measured 8 millimeters in diameter, had already spread to the lymph nodes at the time of operation. On the other hand, there were three cases without demonstrable lymph node involvement in which the tumors measured more than 50 millimeters in diameter. The surgeon should not procrastinate because the tumor is small, nor should he deny his patient a radical mastectomy because the tumor has attained a large size. This is particularly the case if the lymph nodes are not clinically enlarged.

DIFFERENTIATION

It has been said that generalization in regard to mammary cancer without reference to the variety of the tumor is open to criticism. On the other hand, the marked variation in the histologic pattern which may be seen in a single tumor is well known. In sections of one block, no larger than 10 to 15 millimeters across, taken at random, we have observed growth of three and sometimes four different histologic types. For this reason, and also for the reason that insufficient sections were taken through the individual tumors to justify determination of and classification by predominating histologic type, no attempt was made to analyze our material on this basis. Since we had attempted all along to grade the tumors, we prepared a breakdown. No correlation was found between the grade of the tumor and the presence of lymph node involvement at the time of the operation.

On the assumption that the incidence of lymph node metastasis in a group of cases might serve as an index to the duration of the disease at the time of operation, and that such an in-

2. Harrington, S. W.: Collected Papers of the Mayo Clinic and Mayo Foundation, 27:851 (1935).
3. Geschickter, Charles F.: *Diseases of Breast*, Lippincott, (Philadelphia) (1947).

dex might be more reliable than a study of the clinical histories, we calculated the incidence of metastasis in cases treated in the first two and one-half years and compared it with the figure for the second half of the five-year period. There were 63 cases in the first group and 69 in the second. The numbers of far-advanced cases not treated surgically and the numbers of simple mastectomies in the two periods were about the same, (20 and 17). The averages of the ages of the patients treated radically during the two periods were 54.7 and 56.2 years respectively. The average number of lymph nodes found per specimen in the first group was 6.0 and in the second it was 5.9. The mean diameters of the tumors in the first and second groups were 33 and 31 millimeters. In all respects, the two groups of cases appeared sufficiently similar to warrant comparison. The incidence of lymph node metastasis in the cases operated upon between January 1944 and July 1946 was 65 per cent, and in those treated between July 1946 and January 1949 it was 54 per cent. The difference between these figures, although not great, is encouraging. It suggests that in a medium-size, general hospital, not unlike many others in which a large portion of all mammary cancers are being treated, there is a trend in the direction of earlier treatment of carcinomas of the breast.

Mountainside Hospital

CONGENITAL HEART DISEASE. III.

SURGICAL CONSIDERATIONS *

CHARLES P. BAILEY, M.D., ANTHONY D. CRECCA, M.D., DANIEL F. DOWNING, M.D., JOHN J. McGUIRE, M.D., and BERNARD A. O'CONNOR, M.D., Newark, N. J.

The modern history of the surgical treatment of congenital heart disease begins with the first attempt at obliteration of a patent *ductus arteriosus* by Strieder[1] in 1937. The patient had subacute bacterial endocarditis and it was believed that closure of the ductus would improve his condition. Unfortunately, he died, on the fourth postoperative day, of acute gastric dilatation. In 1939, Gross and Hubbard[2] reported the first successful ligation of a patent *ductus*. Since that time, the procedure has become more or less commonplace, advances in technic and anesthesiology having reduced mortality to a very low level. In many series, including our own, there have been no fatalities.

There are two means of obliterating the *ductus;* ligation and division. In the former, single and multiple ligatures are thrown about the vessel, thus shutting off blood flow through the *ductus*. This is the simplest method and for that reason has wide appeal. However, there is always a danger of recanalization and we prefer division.

The vessel is approached through a posterolateral incision in the fourth left interspace. After the surrounding tissues are *completely* separated from the *ductus,* the pulmonary artery and the aorta are freed so that any portion of either vessel in the vicinity of the *ductus* is easily accessible. This is important because, should the *ductus* tear during manipulation, it may become immediately necessary temporarily to clamp off the aorta, the pulmonary artery or both. Two special Potts' clamps are then applied to the *ductus,* one at the pulmonary and the other at the aortic end. These clamps have rows of extremely fine teeth, 40 to 2.5 centimeters. They oppose but do not interdigitate when the jaws are closed and imbed themselves in the adventitia without cutting through the wall. The *ductus* is divided and the stumps sutured with fine silk. A to-and-fro mattress suture followed by an over-and-over suture gives a leakproof closure. After each cut end is closed, its clamp is removed. If there is, by chance, any bleeding, the clamp is reapplied and the necessary extra sutures placed. A catheter drain is inserted

* From the Sections of Cardiology, Pediatrics and Thoracic Surgery, St. Michael's Hospital, Newark, N. J., and the Division of Pediatrics and the Department of Thoracic Surgery, Hahnemann Medical College, Philadelphia, Pa.

1. The two pioneer papers here are: Strieder, J. W.: Journal of Thoracic Surgery, 7:151 (1937) *and* Graybiel, A., Strieder, J. W., and Boyer, N. H.: American Heart Journal, 15:621 (1938).
2. Gross, R. E., and Hubbard, J. P.: Journal of the American Medical Association, 112:729 (1939).

through the sixth interspace, connected to a water seal bottle, and the chest closed.

The complication most to be feared during operation is hemorrhage. In some cases, the *ductus* is so friable that, even though the greatest care is taken it may tear before the clamps are applied. If exposure has been adequate, the bleeding is controlled with relative ease. In one of our patients, as the *ductus* was being gently lifted for application of the clamps, it tore from the aorta. Because this vessel had been completely freed it was a simple matter to clamp it above and below and to clamp the pulmonary end of the *ductus*. The aortic opening was then sutured and the procedure completed in the usual manner.

The operation should be performed in all patients over two years of age in whom the lesion is demonstrated and in whom it is not compensatory. Exceptions may be made in patients of advanced years without signs or symptoms referrable to the *ductus*. Some say that surgery is indicated only if there are complications such as circulatory embarrassment or subacute bacterial endocarditis. This does not appear to be reasonable. It seems more intelligent to cure the condition before such complications arise. The younger the patient, the greater the technical ease of operation and the greater the certainty of an unaffected heart. In patients in whom the *ductus* is compensatory—for example, those with a coexisting pulmonary stenosis—the vessel should not be obliterated unless the lesion for which it is compensating is also surgically improved.

COARCTATION OF THE AORTA

The next triumph in the surgery of congenital cardiovascular defects was the demonstration by Crafoord and Nylin,[3] in October 1944, that the area of aorta involved by coarctation could be excised and the continuity of the vessel reestablished. In the past six years there have been rapid strides in the perfection of the technic of this procedure and the operative mortality has steadily declined.

Three surgical methods have been developed for relieving coarctation. They are: (1) excision of the area and end-to-end reconstruction: (2) excision of the coarctation and insertion of a graft to bridge the gap; and (3) anastomosis of the left subclavian to the distal aorta.

(1) Excision of the coarctation and end-to-end anastomosis is possible in cases in which the affected area is limited. A long curved posterolateral incision is made in the fourth left interspace and the chest entered. The aorta is freed from above and below the constriction. A patent *ductus*, if present, is dissected free and divided. The intercostal arteries at or near the affected area are ligated and divided. Potts' aorta clamps, similar in principle to those used on the *ductus*, are then placed, one above and one below the area to be excised. The offending portion is then removed, leaving clean, sharp edges. An assistant approximates the two ends of the vessel by traction on the clamps, or this is accomplished by manipulation of Potts' special clamp holder. They are sutured by continuous everting intima-to-intima mattress sutures on the posterior row and interrupted everting mattress sutures for the anterior row.

(2) If the coarcted area is found to be too long for end-to-end approximation, a graft must be used to bridge the gap made by excision. This graft may be fresh or preserved, may be artery or vein. In the case of an infant the external jugular vein of the father is eminently suitable.

(3) The third method of intervention, anastomosis of the left subclavian artery to the distal aorta, should not be used unless either of the other two is impossible. The left subclavian artery is the most important channel in the compensatory mechanism for coarctation, the collateral vessels deriving their blood therefrom. If it is used, this collateral circulation is lost and the vessel is seldom of such size as to make collateral circulation unnecessary. Although there may be some improvement, results will never be as satisfactory as when an aortic-aortic or an aortic-graft-aortic anastomosis is made.

To what patients with coarctation of the aorta should operation be offered? Except in advanced years the lesion probably should be operated on in all cases. Symptoms may not appear for several years and by the time they do, the optimal period for surgery may have passed. If the patient is operated upon while young there is a better chance of success than there would be later when atheromatous changes in the aortic wall have developed. If the diagnosis is made in an infant, immediate surgery may be necessary. Two infants in our series died because surgery was delayed too long. They had the "infantile type" and when the *ductus* closed off, death was relatively sudden as no collateral channels had developed.

3. Crafoord, C., and Nylin, G.: Journal of Thoracic Surgery, 14:347 (1945).

TETRALOGY OF FALLOT AND PULMONARY STENOSIS

In November 1944, another striking advance was made in cardiac surgery. Blalock[4] anastomosed the left subclavian artery to the left pulmonary artery of a 15 month old child with tetralogy of Fallot. This was the first of a long series of operations of this type. Patients were markedly improved by this shunting procedure. Potts[5] later devised a means of directly anastomosing the aorta and pulmonary artery so that a greater volume of blood would reach the lungs. Both types of operation have been of immediate benefit to many patients, but their inherent dangers are great. Subacute bacterial endocarditis should develop as readily at the site of the shunt as in a patent *ductus arteriosus*. Also, such arteriovenous fistulas are prone to eventuate in cardiac failure due to the increased load on the heart. Brock[6] reasoned that a direct attack on the obstruction to pulmonary flow would obviate the necessity of a shunt and minimize future complications. His procedure, with modifications, is used by us in all cases of so-called "pure" pulmonary stenosis and all cases of tetralogy of Fallot in which there is a pulmonary artery of adequate size. We feel that by using this technic in the tetralogy of Fallot the patient is allowed a circulation as near physiological as possible and is not exposed to added cardiac damage.

There are two types of pulmonary stenosis in the tetralogy of Fallot. One is valvular—the tree valve cusps are fused and form a cone—the other infundibular. In the latter type, there is a thick membrane partly occluding the outflow tract of the right ventricle. For each of these types a procedure has been devised.

The pre-operative diagnosis is confirmed and amplified by angiocardiography whenever possible and the type of stenosis determined. If the location of the stenosis is not known before operation, it may be determined with certainty on the exposed heart. The cervix-like stenosed pulmonary valve in some cases may be palpated by invaginating the wall of the pulmonary artery. If this is not possible the location of the thrill will be of great diagnostic aid. If it begins in the region of the valve, the stenosis, is, as a rule, valvular; if it begins in the ventricle, there is an infundibulum septum. In valvular stenosis the pulmonary artery may be of great size. This, we believe, is due to blood spurting into the vessel in an eccentric fashion and striking the wall, causing it eventually to stretch. If the flow through the stenosed valve is in the axis of the vessel, there will be no dilatation.

If the diagnosis of valvular stenosis is made, 5 per cent procaine is injected into the pericardial sac and allowed to remain for five minutes. An incision is then made in the pericardium. It was our custom to open the sac widely in all cases. Recently, however, we have limited ourselves, in the case of small infants, to an opening as small as possible. This greater integrity prevents to some extent the dilatation of the heart which occurs occasionally. Two stay sutures are placed in the myocardium 2 to 4 centimeters proximal to the valvular area. A small incision is now made partially through the myocardium and a small curved sound introduced into the ventricle. It is guided through the valve into the pulmonary artery and the degree of stenosis assessed. It is then passed back into the ventricle to determine whether there is an associated infundibular stenosis. Then follows the actual valvulotomy.

A diamond shaped knife with a blunt olivary tip and cutting edge anteriorly is passed through the myocardial incision. The blunt tip engages in the valve where it can be felt through the wall of the pulmonary artery. Slight pressure is sufficient to cut through the valve, thus forming two cusps. Brock[6] has advised that, following the valvulotomy, the opening should be dilated. We believe that this is unnecessary and, in some cases unwise. Only one cut should be made, the largest suitable knife being chosen, and no further manipulation attempted. The passage of more than one knife may produce a frayed valve and the dilatation may tear the cusps, thus inviting regurgitation. If the knife chosen is of the proper size, the surgeon is doing his best if he merely makes one cut through the valve and then sews up the myocardial incision.

For removal of part of the infundibular membrane, Brock has designed a cutting punch[6] which

4. Blalock, Alfred, and Taussig, Helen: Journal of the American Medical Association, 128:189 (1945).
5. Potts, W. J., Smith, S., and Gibson, S.: Journal of the American Medical Association, 132:627 (1946).
6. Brock, R. C.: British Medical Journal, 1:1121 (1948). Also see the earlier paper by Brock, in British Medical Journal, 2:399 (1946).

removes a collar of tissue. This is inserted through the myocardium above or below the obstruction. We use a special rongeur, designed by Dr. Robert P. Glover, which removes a segment of the membrane. With healing, the opening made by this instrument would tend to become larger rather than contract.

The whole procedure is simple and direct. It can be done quickly, a very important consideration. It is not uncommon in these cases for the blood pressure to fall to a dangerously low level or for cardiac arrest to occur when the chest is opened. A shunting procedure might be too time-consuming and the patient lost. The Brock procedure[6] allows a practically instantaneous improvement in pulmonary flow and the procedure may be terminated before the patient's entire reserve has been expended.

This procedure is indicated in all cases of pulmonary stenosis with or without septal defect, and in all cases of tetralogy of Fallot in which there is a pulmonary artery of sufficient size. In some cases the main pulmonary artery is so hypoplastic that this direct procedure is impossible; a Blalock or Potts anastomosis is then the only possibility.

The objection which has been most often raised about the Brock operation is that valvular stenosis is relatively rare in the tetralogy of Fallot and that removal of the infundibular septum is a difficult and dangerous procedure. The latter statement is true but the difficulty and danger are not prohibitively great. As to the relative incidence of valvular and infundibular stenosis, our experience to date would indicate that they are nearly equal.

OTHER DEFECTS

The surgical therapy of other congenital cardiac defects, such as septal defects and transposition of the great vessels, is not as satisfactory as in the previously mentioned lesions. Attempts at correction or improvement have been made. Although the results have been encouraging in some cases, the procedures cannot yet be offered freely. The closures of auricular septal defects is possible in many cases. It entails the invagination of each auricular appendage into its auricle, bringing them together through the defect and suturing each to each in such a manner that the defect is filled. What the long range effects of this procedure will be we do not know, as we have followed no patient for a sufficient length of time. Theoretically, at least, the physiologic effect could be no worse than that caused by the defect, if patients are carefully selected.

Ventricular septal defects in the muscular portion of the septum can be attacked by bringing into the heart (through that anterior wall of the left ventricle) a pedicle flap of pericordium, the free end of which is then brought out through the posterior wall and sutured in place. This flap acts as a valve over the defect. The pressure of blood in the left ventricle effectively holds it against the defect during systole and prevents the left-to-right shunt. Only patients with large, symptomatic defects should be so treated.

Many anastomosing procedures have been attempted for transposition of the great vessels. Another type of surgical therapy has been the creation of intracardiac shunts. The ideal procedure would consist of transposing the aorta and pulmonary artery to their normal positions; this is not, at the present time, technically feasible. All we are able to offer now are measures which allow a better admixture of venous and oxygenated blood. Unsatisfactory as these procedures are they may, in certain cases, prolong life.

SUMMARY

The surgical therapy of congenital cardiac defects has been one of the great achievements of this half century. The cardiac surgeon is now able to offer life and comfort to individuals heretofore doomed. The lesions which allow operative intervention at the present time include patent *ductus arteriosus,* coarctation of the aorta, and pulmonary stenosis, with or without associated lesions. For other lesions, such as septal defects and transposition of the great vessels, corrective technics exist, but they are impossible for general applicability today.

St. Michael's Hospital, Newark
Hahnemann Medical College, Philadelphia

SOCIAL ASPECT OF EPILEPSY*

EUGENE REVITCH, M.D., Lyons, N. J.

Treatment of the epileptic is made up of two components: medical and psychologic social care. Therapy of epilepsy does not stop with anticonvulsive medication. It must be supplemented by psychologic therapy of the patient and by combatting the prejudices of the public against epilepsy. That public attitudes toward this condition greatly interfere with social adjustment of epileptics is obvious to any one who takes the trouble to become acquainted with the life history of epileptics. A survey of the attitudes of 2696 adults[1] revealed that: 92 per cent of them had read or heard about epilepsy; 24 per cent would object to having their children associate with epileptics; 35 per cent felt that epileptics should not be employed in jobs like other people. The statistics also prove that the higher the educational standard of the individual, the less hostile is his attitude to the epileptic. In spite of a more favorable attitude evidenced by college graduates, a survey of 1331 schools[2] revealed that: 21 per cent of them admit epileptics conditionally and 14 per cent do not admit them at all. The smaller the school the greater the reluctance to provide for epileptics. The eastern colleges are less willing to admit epileptics than are the colleges of mountain and Pacific states. The survey estimated that there are approximately 500 epileptic students in a college population of 1,000,000. However, in assuming that one out of 200 citizens are epileptics, the number of epileptic students should be about 5000. Two-thirds of epileptics have normal mentality. A survey of 300 private patients by Collins and Lennox[3] shows that the average I. Q. (Wechsler-Bellevue test) was 112 and that a third of these patients had an I. Q. of 120 and above. This suggests that most epileptics could be successful in college and perform various duties which are now denied them. To be sure, patients subject to convulsive seizures or to lapses of consciousness (as in petit mal epilepsy) should not be permitted to drive a car or to occupy positions which would jeopardize their safety or the safety of others. They should be barred from such jobs as bus drivers, locomotive engineers, painters, brick-layers, pilots, et cetera. Unfortunately one seizure, even in a "safe" occupation (such as a salesman in a store) may mean loss of job. The life of an epileptic child is particularly miserable. Some schools will not permit him to continue his studies. Parents of an epileptic child, and epileptic adults themselves may have a feeling of shame connected with their condition. This sense of shame, social ostracism, and danger of loss of job, are responsible for the tendency of parents of epileptic children and of adult epileptics to keep the condition secret.

In a child, "fits" may be responsible for undue anxiety and over-protective attitudes on the part of the parents. Thus the child is not permitted to participate in the normal activities of his age and is isolated from the companionship of normal children. During adolescence and the premarital period, epilepsy may interfere with courtship, marriage and normal socialization of the young man or young woman, even if the seizures are very infrequent. Lennox[2] cites the case of a female student discovered by the college physician to have been taking Dilantin.† She had been without a seizure for three years. In spite of that, she was forced to leave the college dormitory.

One of my patients at the Veterans Hospital had a seizure in the lobby of a Y.M.C.A. He was ordered to give up his room. Another veteran patient, father of five children, well controlled with anticonvulsive medication obtained work as a counter-man in an ice cream parlor while he was on trial visit from the hospital. He lost the job as soon as the proprietor

* Published with permission of the Chief Medical Director, Veterans Administration, Washington, D. C., who assumes no responsibility for the opinions expressed or conclusions drawn by the author.

† Dilantin is the Parke, Davis trade name for a brand of diphenyl hydrantoin sodium.

1. Caverness, William: *Epilepsia*, 4:19 (December 1949).
2. Potter, G., McBride, M., and Lennox, William: Proceedings of the National Association to Control Epilepsy. Baltimore, 1949, Williams and Wilkins, page 534.
3. Collins, A. L., and Lennox, William G.: Proceedings of the National Association to Control Epilepsy. Baltimore, 1949. Williams and Wilkins. Page 586.

found out about his seizures. Those who have had skilled employment prior to the onset of illness are in a particularly deplorable situation because their unjust loss of occupation may mean a considerable lowering of their family's standard of living. In my experience only very few of these unfortunates were able to find other occupations and to readjust themselves to the new conditions. One automobile mechanic became a tailor and a dental student with frequent petit mal attacks thought of changing from dentistry to law. I have had no opportunity to follow these patients for any length of time after their discharge from the hospital. The unfavorable attitudes toward epileptics is amply reflected in literature. Lennox[4] in stressing the importance of social care of epileptics emphasizes, however, the obstacles such as prohibition of marriage of epileptics (in many states) discrimination by employers and denial of education, particularly of higher education. Yet, 75 per cent of epileptics can lead a normal life. Margaret Lennox[5] recently reported on a group of 22 employed epileptics: 15 of the 22 made an "adequate to good" work adjustment. Fourteen of the 22 made an "adequate to good" social adjustment. She finds that patients who are *not* secretive about their illness make better adjustments than those who deny it. Patients able to accept their illness have more self-confidence and self-respect than those who feel that they should keep it a secret. The Social Service department of Skillman Village, New Jersey, made an attempt to place epileptics on jobs. Here is what their case worker reports:[6] "Careful planning and effort were nullified when one of the men sent to apply for work had a seizure in the office of the personnel manager" ; and "public employment agencies have shown a sincere interest in placing epileptic individuals but since they have been unable to place all applicants who do *not* have physical handicaps, they have found it almost impossible to place those who have a history of epilepsy"; and "continuing efforts have been made to interest farmers in accepting for employment men who are ready to go out on extended visit, but no placements have been made for several years."

Administration of anticonvulsive medication is only one side of the attack on epilepsy. Too many physicians limit themselves to prescribing an anticonvulsive drug without informing the patients about their illness and without any attempt to help them solve their emotional and social problems. This type of treatment is entirely inadequate. At the Veterans Administration Hospital (Lyons, N.J.) we have "information meetings" with groups of non-psychotic newly admitted epileptics. It is surprizing how much anxiety is dispelled and how much self-confidence and clearer perspective are gained by that method. It is well known to students of psychosomatics that emotion may precipitate fits. Contrariwise, a feeling of self-confidence and happiness will be very helpful in preventing seizures. Much of the frustrating experience of epileptics is due to public ignorance and faulty attitudes. An educational campaign is, therefore necessary. Is epilepsy a great enough problem for expenditures and effort connected with attacking public prejudice? It is believed that there are about 600,000 epileptics in the United States and that about 50,000 veterans of both World Wars suffer from seizures. It is estimated[7] that in New Jersey alone there are about 20,000 epileptics. Only 10 per cent of epileptics are hospitalized. The rest are treated by private practitioners or in clinics. Hospitalized epileptics are less of a social problem than are outpatients because they constitute the bulk of the mentally deteriorated or of those whose seizures occur at too frequent intervals for normal social or work adjustment.

What has been done for the solution of the problem involved in the social aspect of antiepileptic therapy? On the national scale there were two lay societies, "The American Epil-

4. Lennox, W. G.: Canadian Medical Association Journal, 56:638 (1947).

5. Lennox, Margaret A., and Mohr, Jennie: American Journal of Psychiatry, 107:257 (October 1950).

6. DeCamp, Anna C.: The Welfare Reporter. Published by the New Jersey Department of Institutions and Agencies, 4:8:9 (April 1950).

7. Article: A State Epilepsy Program. JOURNAL of The Medical Society of New Jersey, 47:346 (July 1950). Also, see the Welfare Reporter (N. J. Department of Institutions and Agencies) 5:7:8 (August 1950).

epsy League" and "The National Association to Control Epilepsy" which recently merged to form a unified organization now called "The National Epilepsy League".[8] Special efforts will be made by this league to establish epilepsy clinics, to draft a law that would provide for compensation to an epileptic injured at work and to help children requiring special assistance in education. The National Epilepsy League as well as its two parent societies have published many pamphlets for the use of laymen interested in the subject. The physicians interested in epilepsy are organized in the "American League Against Epilepsy"[9] which is a branch of the "International League Against Epilepsy". The Medical Society of New Jersey and the State Department of Institutions and Agencies have recently developed a medico-social program for attacking the problem.[7] This program begins with the establishment of an advisory council and of a medical advisory committee whose task will be to coordinate all the private and public resources and to organize demonstration clinics for instruction and consultation services.

CONCLUSION

In spite of much progress in understanding the physiologic basis of epilepsy, and in developing of new anticonvulsive drugs, the care and treatment of epileptics will be incomplete without additional guidance of the patient, without dispelling his anxiety by giving him understanding of his illness, by fostering his feeling of self-esteem and by changing public attitudes. This cannot be done by the private practitioner alone. Physicians, particularly neuro-psychiatrists, and also psychiatric social workers will have to campaign through press, radio, and lectures to the public and through various medical societies. Their mission will be to acquaint the medical practitioner with some of the problems of epilepsy which otherwise may escape his interest or attention. The advisory council as planned in the state of New Jersey is a step toward the solution of the social therapy of epilepsy.

Veterans Hospital

CONVULSIVE TOXEMIA OF PREGNANCY ASSOCIATED WITH INTRACRANIAL HEMORRHAGE *

H. Oren, M.D., Park Ridge, N. J.

Intracranial hemorrhage is an exceedingly rare complication of pregnancy. The following case is the first to occur in the past five years at the Hackensack Hospital. Its incidence there is 1 in 12,000 deliveries. In this case, intracranial hemorrhage was associated with eclampsia. Toxemia (convulsive type) occurs far more often in pregnancies complicated by prepregnant hypertension, than in those without pre-existing hypertension. Toxemia in the latter cases is identified with the hypertensive syndrome of pregnancy. Intracranial hemorrhage is more frequently associated with prepregnant hypertension than with the toxemic syndrome of pregnancy.

The following case is recorded because it is an unusual association of the hypertensive syndrome of pregnancy with intracranial hemorrhage.

A gravida I, para 0, 27 year old woman, was given prenatal care by her family physician. Last menstrual period was November 15, 1948. Estimated date of confinement was August 22, 1949. Otherwise her history was not relevant, except for a submucous resection of the nasal septum in 1945.

Prenatal examination revealed no physical abnormalities. Blood pressure throughout pregnancy varied between 100/70 and 118/80. Repeated urinalyses were normal. Her "normal" weight was 120 pounds, and her weight at term was 140, a total gain of 20 pounds. Blood Mazzini was negative.

The prenatal period was uneventful until August 12, 1949, when she complained of headache and

8. This League is headquartered at 130 North West Street, Chicago, Illinois.
9. Headquartered at the Veterans Administration Hospital, Framingham, Massachusetts.

* From the Department of Obstetrics and Gynecology, Hackensack Hospital, Hackensack, N. J.

slight nausea. She wanted to enter the hospital two days later because she thought herself to be in active labor. At this time she complained of severe headache, blurred vision, nausea and vomiting. Blood pressure was 170/120. The laboratory reported a 4 plus albuminuria with no casts.

She entered the hospital on August 14. Four hours after admission, she had a severe convulsion, which lasted five minutes. She was placed on an antieclamptic regime. Subsequently there was one severe convulsion every hour, to a total of seven seizures. These convulsions were controlled somewhat by intravenous sodium pentothal.† After the seventh convulsion the patient lapsed into coma; blood pressure gradually rose to 220/160. The face and conjunctiva became edematous. The conjunctiva was so swollen that it formed a rim, one half inch thick around the eye. Twelve hours after admission, she developed Cheyne-Stokes respiration and the coma deepened.

On the following day the blood pressure dropped to 170/100. Two hundred cubic centimeters of very concentrated urine were obtained by catheterization. Suddenly the patient went into active labor. The membranes ruptured spontaneously. Three hours after the onset of labor, under pudendal nerve block and intravenous sodium nembutal[1] anesthesia, a live male infant, weighing five pounds and eleven ounces was delivered by low forceps.

Five hours after delivery, blood pressure dropped to 130/90 and 150 cubic centimeters of concentrated urine were passed. On the next day, the coma was not as deep as before and blood pressure was down to 100/70. Transfusion of a half litre of whole blood produced remarkable improvement. Within one hour after the transfusion, the patient became only semi-comatose and could sip clear fluids.

On the fourth day after delivery, she received another transfusion of 500 cubic centimeters of whole blood. On the evening of the same day, a flaccid paralysis of the upper and the lower extremities was noticed; blood pressure rose to 150/100 and the body temperature to 103. There was a two plus albuminuria, and marked nuchal rigidity. However, both Babinsky and Kernig signs were negative. The pupils were equal and showed good accommodation. Consultation with the medical staff confirmed the diagnosis of cerebral hemorrhage.

Lumbar puncture was performed, the initial spinal fluid pressure was 300[2] and the final pressure was 150.[2] The fluid was blood tinged. Two days later the lumbar puncture was repeated; the initial spinal fluid pressure was 260,[2] and the final pressure was 140.[2] The spinal fluid sediment consisted of erythrocytes only.

The patient's condition showed no improvement until the eleventh day postpartum. Then she began to move her right arm and leg. Her speech showed a moderate slur. With some slight aid the patient could walk on the thirteenth day, the headaches became less severe and she could read fairly well. Blood pressure and urine were normal, her locomotion was good on the sixteenth day when she was discharged from the hospital.

The follow-up examination, six months later showed the patient to be physically and mentally normal. She has continued in her good health to the present time.

This case was remarkable in that a 27 year old primapara, of apparent good health and normal blood pressure, developed a convulsive type of toxemia of pregnancy with subarachnoid hemorrhage. Although complete recovery from this double catastrophy is rare, this patient *did* recover completely. Since there was no pre-existing hypertension, the explanation of this case rests on surmise. Perhaps a pre-existing lesion in the vascular system, possibly a congenital aneurysm in a small cerebral artery—one that could not withstand the increased arterial pressure brought on by toxemia. A woman with a past history of an intracranial hemorrhage should avoid future pregnancies.

SUMMARY

1. An unusual association of the hypertensive syndrome of pregnancy with intracranial hemorrhage is reported.

2. After low forceps delivery of a healthy infant and transfusion of adequate amounts of whole blood, the symptoms of toxemia appeared relieved, but symptoms of intracranial hemorrhage appeared.

3. Although complete recovery is rare, this patient recovered completely.

4. As there was no prepregnant hypertension, the etiology of this case is in doubt. However any patient with a history of an intracranial hemorrhage, should avoid future pregnancies.

†Pentothal is the Abbott Laboratories registered trade-name for their brand of sodium ethyl thiobarbiturate.

1. Nemhutal is the Abbott Laboratories registered trade-name for their brand of pentobarbital.
2. Millimeters of water.

74 Perry Street

MALIGNANT LESIONS OF THE COLON*

H. WESLEY JACK, M.D., Camden, N. J.

Surgery of the colon has not been fully appreciated until recent years. Proper surgery for lesions of the colon is frequently attended with marked benefit to the patient and, through early and adequate surgery, there is often a good prognosis.

This presentation will be confined to lesions extending to, and including, the rectosigmoid. Reference is made to the rectum only from the standpoint of its removal in carcinoma of the rectum and the frequency of recurrence, thus excluding (though often of major significance) proctologic conditions.

A complete history and systematic examination is of greatest importance. We have all, from our student days, heard off-repeated those famous words: "History, family history, past personal history, and present history", so many times. Yet, we often slide over this part of the interrogation, though there, frequently, lies the diagnosis right before us. Major points to be elicited in history are:

1. Patient's age, sex, marital status, recent weight gain or loss.
2. *Family History:* Health status of parents if living: if deceased, details as to the nature of their illness; particularly important from the standpoint of tuberculosis and polyposus.
3. *Past Personal History:* Illness of the past, such as:
   (a) Attacks of abdominal pain—so important in partial bowel obstruction, as in volvulus, intussuception, and congenital abnormalities causing partial obstruction, not operated, as congenital pyloric stenosis and Meckel's diverticulum.
   (b) Attacks of dysentery: amebic or bacillary.
   (c) Previous abdominal operations.
   (d) Frequency of pulmonary infections (suspicion of tuberculosis).
   (e) Abdominal trauma: past and recent.
   (f) Frequency of bowel habit.
4. *History of Present Illness:*
   (a) Time of onset: gradual or sudden.
   (b) Presence or absence of pain, and its location.
   (c) Bowel function; any change from normal, such as: frequency of constipation, diarrhea, character of stools, color of stools, loose, watery, hard, firm, presence of mucus, presence of blood, dark or bright, elimination of flatus, extent of digestion of food.

Complete systematic physical examination includes head, neck, chest, abdomen, back, upper and lower extremities, with careful search for lymphatic enlargements, neurologic examination, and digital examination of the rectum. This must all be done and recorded. No examination is complete without rectal, anoscopic, proctoscopic, and sigmoidoscopic inspection. The necessary laboratory studies of the blood, blood chemistry, urine, and feces: including culture and cytologic studies of cells in washings of colon, and repeated at intervals if necessary.

Roentgenologic studies include barium enema, contrast enema, barium by mouth—all of which may have to be repeated several times.

Careful evaluation of the patient's cardiorenal status should be accomplished by a capable internist; consideration being given to the patient's endurance, or how easily fatigued; the ability of the patient to ascend stairs without shortness of breath; and presence of edema of the ankles.

Carcinoma of the large bowel spreads:—

1. By local extension to involve, first the wall of the gut, and then to any other tissues or organs that may touch it.
2. By lymphatics, usually in a cephalad manner, and rarely in a caudal direction. Regional lymph nodes at the time of operation are involved in from 36 to 68 per cent of cases.
3. By veins posterior to the liver and then to the lungs, and then the other organ or tissue. The incidence of tumor emboli in resected specimens is reported in from 16 to 90 per cent, but it is said that visceral metastases developed in over 9/10ths of such cases and by the way of the peri-neural spaces. This form of spread is reported as occurring in 30 per cent of resected specimens. It is probably responsible for pain which occurs in 90 per cent of the cases, and is responsible for local recurrences in 80 per cent of the cases. (Herbut[1])

Spread is slow, especially in the distal colon, and takes place:

(1) By direct infiltration.
(2) By the lymph stream.
(3) At a late date, by the blood stream.

* Read by invitation before the Section on Surgery of The Medical Society of New Jersey at its 184th Annual Meeting in Atlantic City on May 22, 1950.

1. Herbut, Peter A.: In Boyd's *Surgical Pathology*. Saunders, Philadelphia, Sixth edition (1949).

Direct Infiltration: The tumor cells first spread in the submucous coat; they tend to encircle the bowel, giving the annular form of carcinoma. In time, they penetrate the muscle and serous coat and appear on the surface. They may be sown over the peritoneum of the pelvis floor, and becoming implanted on the ovaries, give rise to secondary tumors of large size. The tumor may become adherent to the bladder, coils of small intestines, or other adjacent structures.

Lymph Spread: Tumor cells *do not* pass quickly to the regional lymph nodes, so that cancer of the large bowel is *one of the less malignant forms of carcinoma.* It is commonly stated that lymph spread is commoner and earlier in cancer of the cecum, than in cancer of the descending colon and sigmoid. The cecum, which is more concerned with absorption, is better supplied with lymphatics. Autopsy statistics, however, show that lymph form metastases are even more common on the left side than the right. The glands draining the proximal colon, lie along the ileocolic artery, those draining the distal colon are found along the branches of the inferior mesenteric artery. The transverse colon drains into glands in the mesocolon.

Blood Spread: This usually occurs only in the end stages, but may sometimes take place when the primary growth is still small. Metastases occur first in the liver, owing to the spread by the portal vein, more rarely the other viscera may be involved. Bacon[2] puts it this way: The mechanism by which these cells reach or extend to new regions may be considered under the following headings:

1. Direct continuity of structure (infiltration).
2. Implantation or transplantation.
3. Lymphatics.
4. Blood Stream.

Infiltration: The term "infiltration" will be used to imply local invasion peripherally and in depth. In both instances, the process is gradual. The malignant cells by multiplication spread through the intercellular spaces, or those by endothelium and invade the tunica propria, the muscularis mucosae, submucosae, and later the peri-rectal fascia. According to Miles, it is only after penetration of this peri-rectal fascia, that invasion of the neighboring structures, can take place. In general, carcinoma of the rectum seems to enlarge equally in all directions, superficially from a central point in the mucosa, although the lateral surface spread in the transverse axis progresses more rapidly than upward and downward in the longitudinal axis. Miles computed the period for complete annular involvement of the rectum to be from 18 to 24 months, which was confirmed by Bacon[2] and his investigators and corresponds to the conclusions of Glover and Waugh, that 6 months is the estimated time for carcinoma to travel approximately one quarter of the circumference.

Implantation or Transplantation: It is recognized that implantation does occur. Many authentic cases have been reported. Here the cells become detached, or are cast off, and become implanted on another portion of the mucosa. Not infrequently a secondary growth is engrafted by direct apposition or transfer of cancer cells, especially in the narrowed portion of the lower rectum. Variation in the histologic appearance would not be expected, inasmuch as they arrive from the same type of epithelium.

Lymphatics: Dissemination by way of the lymphatics is the most conspicuous, and therefore, the most important phase. For the most part the mode of spread conforms to an orderly pattern. While there exists a tendency for carcinoma to remain localized and spread slowly, the frequency with which exceptions are encountered, as evidenced by histopathologic studies, demands an intimate knowledge of this type of dissemination. Westhues has stated: Actually up to 80 per cent of all cases of rectal carcinoma show local metastases, so that rectal carcinoma is locally much more malignant than is generally assumed. Pathologically, two varieties of lymphatic metastases are recognized:

(A) *Embolic:* accepted as the most common. The cells, after invading the lymph vessels (also the venous system) are carried to the regional lymph nodes, or to some remote site causing secondary growth.

(B) *Permeation:* refers to a continuous column of neoplastic cells along the endothelial lining of the lymph vessels from the primary tumor to the tributary gland. While acceptable as an explanation for small nodules about the growth of the rectum, distant metastases on this basis, are open to question. Although Handlay and Cornet, both vigorous proponents of the theory of lymphatic permeation, offered objective evidence in its favor.

Adenocarcinoma is the most frequent variety of malignancy encountered in the rectum and sigmoid (over 90 per cent); dissemination occurs most frequently by the lymphatic system and is usually embolic in character. The spread of cancer is most commonly cephalad, conforming to the "upward zone" of Miles and in relation to the superior hemorrhoidal vessel, especially in the veins.

Retrograde flow in carcinoma is of vital importance, especially when one considers the question of the frequency of retrograde nodal metastases. As early as 1897, Waldeyer called attention to the facility by which epithelial cells spread in reverse direction to the lymph stream. Von Recklingheusen described a direct reversal of the lymph stream in cancerous obstruction of the thoracic duct. Miles, in 1923, contended that cancer extends in three directions, previously described as zones of spread: upward, lateral, and downward. However, Westhues published a treatise in 1934 in which he

2. Bacon, Harry E.: *Anus, Rectum, Sigmoid and Colon.* Lea and Febiger, Philadelphia. Third edition, 2:645.

confirmed the work of Staemmler and Fischer, that rectal carcinoma has a strikingly small tendency toward lateral spread, in the bowel wall layers, especially downward. Grinnell[3] has stated that up to the present time 322 carcinomas have been studied: 171 from the colon, 33 from the recto-sigmoid, and 118 from the rectum. Over 12 thousand nodes were sectioned during this study. His conclusions were:

1. A study of lymph node metastases was made in 322 specimens by carcinoma of the colon and rectum. Metastases was found in 43 per cent of the colon tumors, 42 per cent of the recto-sigmoid tumors (only anterior and Hartman resections included), and 53 per cent of the rectal lesions.
2. When main lymphatic routes are blocked by node metastases, lateral, and often retrograde, extension may occur chiefly along the paracolic lymphatics leading to more circuitous channels. Evidence of such spread was seen in 7 per cent of the colon specimens, or 12 per cent of those with node metastases. There undoubtedly were other instances that were not discovered. To deal with this possibility, wider routine resection of both bowel and mesentery is necessary, especially in the transverse and left colon.
3. The frequency of metastasis in the highest node along the main tributary vessels in the specimens (colon—16 per cent, rectosigmoid—9 per cent, and rectum—12 per cent), emphasizes the need for lighting the vessels and removing the nodes at the highest possible level. It is suggested that:
   A. The operation of anterior resection and anastomosis with ligation of the inferior mesenteric vessels be extended upward to include tumors of the sigmoid, and that the vessels be ligated as high as possible, even above the left colic branch, in certain cases.
   B. In abdomino-perineal resection for carcinoma of the rectum, the inferior mesenteric vessels be ligated at their origin above the left colic branch, and the colostomy be made in the transverse or descending colon.

Gilchrist and David[4] have stated that in their study of 200 patients having resections for carcinoma of the colon, there was a 96.5 per cent five year follow-up. One hundred and fourteen were known to be alive, five to ten years (57 per cent).

In their study of the surgically removed specimens, microscopic sections were made of over ten thousand different lymph nodes, carefully plotted as to location in relation to tumors and surgical land marks. A number of facts stand out; the lymphatic spread of carcinoma of the colon is primarily embolic, and the nodes where the emboli lodge prevent further spread until the node is completely overwhelmed by carcinoma. Further embolic spread is through the collateral channels, each new node involved tending to make a longer and more difficult channel for a new embolus to travel. Spread from one node to another, does not seem too common.

Thus, the finding of a group of involved nodes, within the field removable by surgery, does not mean that a case is hopeless. However, it does indicate the need for the widest possible resection of lymph nodes draining the area of carcinoma.

1. In each of the regions of the bowel studied, patients in whom no lymph node metastasis could be found in the surgical specimen, had a five to ten year survival rate of 78 per cent. If those who were lost to follow-up, and those who died postoperatively and of other causes after leaving the hospital, were taken into account, this figure would be even more impressive (91 per cent).

2. Of the 125 having lymph node metastasis, 56 lived five years. This is 49 per cent. However, this varied upon the location of the carcinoma. Those with carcinoma in the middle and left colon, and of the extra-peritoneal part of the rectum, had a 37 per cent survival. Those of the right colon had a 61 per cent survival, and those of the sigmoid and intraperitoneal part of the rectum had a 51 per cent survival rate. A number of factors contribute to this difference. In the extra-peritoneal part of the rectum, 23 per cent developed local recurrence, and 16 per cent developed liver recurrences. In the remainder of the bowel, local recurrences were not as easy to demonstrate since they do not cause symptoms early, but they are obviously less frequent. If this incidence of local recurrence were disregarded, the prognosis in the extra-peritoneal part of the rectum would be as good as any other part of the colon.

3. The 37 per cent survival rate of those having carcinoma of the left side of the colon, when node metastasis are present, indicates the need for wider resection of the mesentery in this area.

4. Resection of fixed tumors and the structures to which they are adherent, give a better prognosis than might be expected, a 40 per cent five year survival, 20 per cent died postoperatively. This figure will be much improved when chemotherapy is used.

5. Retrograde metastasis to nodes 1 to 5 centimeters below the tumor, occurred in 7 of the 153 tumors below the promontory of the sacrum—a ratio of 4½ per cent.

3. Grinnell, Robert S.: Annals of Surgery, 131:494 (April 1950).
4. Gilchrist, R. K., and David, V. C.: Annals of Surgery, 126:616 (October 1947).

6. The liver was the site of recurrences in 10 to 16 per cent of the tumors. These were probably due to blood-borne metastasis, and bear out the figure of 15 per cent blood vessel involvement, reported by Coller.

7. When small "grain of sand" nodules of uniform size are found in the liver, the operator should not give too pessimistic a prognosis, as most of these are scars.

8. Two or three patients who developed carcinoma of the rectum while pregnant, lived over five years. This suggests that the gloomy prognosis given pregnant women with neoplasms, may not be justified in carcinoma.

9. Postmortem examination of those dying in the hospital after resections for carcinoma of the rectum, showed that the ordinary autopsy would usually fail to demonstrate small metastasis in the remaining retro-peritoneal lymph nodes. Four of the eleven postmortems were found to have metastasis to nodes in the retro-peritoneal tissues. In three of these, complete removal of all node metastasis would have been obtained if the field of resection had been 1.5 centimeter wider.

10. New carcinomas developed in seven patients who had had resections. This does not include carcinoma of the skin. In some the diagnosis was not made for several months after symptoms appeared. Patients who have had one cancer of the colon, should be examined carefully whenever any symptoms suggesting carcinoma appear.

11. It is interesting to speculate on the fate of the cancer cells left in these nodes, had the patient lived. In some, inflammation might have resulted, either in death of the cells or fixation in heavy fibrous tissue. It is not unlikely that such metastasis in lymph nodes missed at operation, finally grow. They might grow to great size without giving symptoms. We have sections of the blood vessels supplying lymph nodes, being invaded by cancer. Possibly, emboli from such a source might be responsible for the sudden appearance of multiple metastasis many years after resection of the primary growth.

12. In evaluating the type of procedure used in treating carcinoma, the survival rate is important. Of those who died of recurrence in less than five years, two-thirds occurred within three years, and one-third between three and five years. Six of those listed as five year cures developed recurrences and were dead, or dying, in less than seven years. In view of the appreciable proportion who developed recurrence in the fourth and fifth year after operation, it seems foolish to consider anything less than a five year survival, as a cure. Such short term survivals should not be included in discussions, since they lead the general practitioner to false conclusions. Finally, this study indicates the need for the widest possible resection in carcinoma of the colon.

Lesions which are partly or completely below the peritoneal reflection have a higher incidence of local and liver recurrence, and pull-through, or sleeve resections, are not much better than a local resection. The Miles operation seems to give the best chance of cure here.

As far as lesions within the peritoneal cavity are concerned, I have performed obstruction resections on several that could be palpated when doing a rectal examination. This is justified if, not only the bowel wall but the blood vessels and lymph bearing tissues, are resected at least one and one-half to two inches below the lesion, as well as to a point just distal to the first sigmoid artery. This is a point about one and one-half to two inches, above the promontory of the sacrum. If this is not done, involved nodes will be missed. The David extra-peritoneal procedure will allow for such a resection in many. If, after such an extensive resection of mesentery, there is still an adequate blood supply to the distal loop, we will not object to end-to-end anastomosis.

The point of the discussion about end-to-end anastomosis, is missed, it seems to me. It should be: can you remove all the cancer, and not, can you sew two ends of the bowel together. Obviously, in those intraperitoneal lesions below the promontory of the sacrum, which are large or have palpably enlarged nodes, the abdominal peritoneal resection will give a greater chance of cure.

David and Gilchrist[5] report that the literature has shown an increasing interest in operations which they consider less radical than the one stage abdomino-perineal operation of Miles. They emphasize the fact that the basic criterion is to determine what surgical procedure gives the patient the best chance for a long-term cure, and not whether certain operations are technically possible, or that the continuity of the intestinal tract, however desirable, can be maintained.

The peritoneal reflection from the anterior wall of the rectum to the bladder, was selected as a dividing line in their study, because of the regional anatomy of the rectum below this point, and because in the experience of a considerable group of surgeons, the abdomino-perineal operation is regarded as the most radical operation for the removal of the cancer and the tributary lymphatics, and therefore, the procedure which is most likely to result in a long term cure.

5. David, V. C., and Gilchrist, R. K.: Surgery, Gynecology and Obstetrics, 89:31 (July 1949).

They found 112 extra-peritoneal cancers of the rectum which were removed by abdomino-perineal resection; 51 per cent were alive and free of cancer five to ten years after operation, compared to 65 per cent of intraperineal cancers of the rectum and low sigmoid, one-half of which were removed by abdomino-perineal resection, and one-half by obstruction resection with subsequent establishment of continuity.

Comparing the two groups, above and below the peritoneal reflection, about the same number had carcinomatous lymph node involvement (61 per cent and 63 per cent). However, below the peritoneal reflection, only 37 per cent with node involvement were alive five years or more, after operation, compared with 51 per cent above the peritoneal reflection. In the group below the peritoneal reflection without the node involvement, 74 per cent were alive five years or more after operation, compared to 90 per cent of the groups above peritoneal reflection.

Local recurrence in the pelvis after operation on cancer of the rectum below the peritoneal reflection, with involved nodes, was 23 per cent, as compared to 3.6 per cent in the group above peritoneal reflection.

It appears from these facts that cancer of the rectum below the peritoneal reflection, treated by abdomino-perineal resection, has definitely a lower rate of long term cure and a far greater incidence of local recurrence after operation, than in cancer of the upper rectum and lower sigmoid, treated either by abdomino-perineal resection, or obstruction resection. It would also appear obvious that any operation for cancer of the rectum which makes a compromise with radical treatment, should be avoided. In this connection, it is hoped that similar studies of patients treated by other operations, which we consider less radical, should be published.

The article states that no particular brief for the peritoneal reflection, as an arbitrary dividing line in study results in surgery in cancer of the rectum is held, except that they would stress the importance of the regional anatomy in the surgical treatment of the long term cure of cancer below the peritoneal reflection. In that portion of the bowel, the fascial and muscle attachments, as well as contiguity to neighboring structures of the varying pathways of lymphatic spread, make complete eradication of cancer less certain, than in high lying tumors of the rectum. By the same token, they believe that less radical surgery than the Miles operation for cancer is the rectum below the peritoneal reflection, should be regarded critically until acceptable evidence is published to show that the results of less radical surgery compare favorably with the results of abdomino-perineal resection. In discussing this paper, Rankin[6] commented that the contribution buttresses the epic work of Miles, published at the turn of the century and more strongly than ever emphasizes a number of basic points dealing with the spread of cancer and directly bearing upon the type of operation indicated for eradication of rectal malignancy. Thus, it is essential to examine a large number of glands, in any operative specimen. He spoke of the fact that their average of 55 glands per specimen, was far above that of most pathologists, and their work indirectly emphasizes the grade of the gland as a good yardstick whereby one measures the prognosis; in his experience longevity is in direct ratio to the grade of the gland, and consequently the lower the grade, the less likely early metastasis.

He further said that extirpation of rectal malignancy with a wide-spread removal of gland-bearing tissue gives the highest incidence of long time freedom from recurrence. Even when there is no involvement, about one-half of these patients have lived about five years, free from return. Any operation predicated upon any other thesis than the widespread dissection of gland-bearing areas with the growth is excessively vulnerable. In operations for cancer of the rectum, he said, his own choice has been for the past fifteen years, the one stage combined abdomino-perineal resection after the technic of Miles.

One must ask of any operation for cancer, how many patients are alive following it, at any given time. That is the true test of a surgical procedure. The sphincter saving operations were little more than local excisions for all cancers situated below the peritoneum.

Jones[7] pointed out that 22 per cent of lesions in the ampulla had local recurrences. This figure of 22 per cent would seem a little high.

Cattell[8] reviewed 114 patients with carcinoma of the rectum operated upon at Lahey Clinic in 1945, in which they found a preponderance of cases with extensive involvement. Only 39 had the lesion confined to its primary site. Regional nodes were involved in 24. Local extension occurred in 11, while 14 had direct invasion of other organs, not including 26 who had liver metastasis. Because of this, they believed the abdomino-perineal resection was necessary to offer the greatest chance of cure. In a previous study of five year results, they had found that 80 per cent were free of recurrence when there was no spread, while if lymphatic involvement was found this figure dropped to 30 per cent. If blood vessel invasion could be demonstrated, the five year survival rate was 15 per cent.

Wangensteen[9] admitted freely that in low-lying rectal lesions less than 6 centimeters from the external anal orifice, the sphincter-saving operation should not be done. And especially in large ampullary lesions in juxtaposition to the levators, the conservative operation is out of order.

He further stated that you can overdo anything —even a good thing such as an abdomino-perineal operation. And that he had no quarrel with the thesis that, from the point of view of curing cancer of the rectum, there is no operation superior to the abdomino-perineal operation. However, he felt it was not a light matter to deprive a man of his rectalsphincter, and that it was advice more easily given than accepted.

6. Rankin, Fred W.: In discussion of the Gilchrist-David paper, citation 4 above.
7. Jones, Thomas E.: In discussion of the Gilchrist-David paper, citation 4 above.
8. Cattell, Richard B.: In discussion of the Gilchrist-David paper, citation 4 above.
9. Wangensteen, Owen H.: Surgery, Gynecology and Obstetrics, 81:1 (July 1945).

Gilchrist[4] commented that as their studies had progressed they had become more and more radical in their resections of the lymphatics draining the carcinoma, and that he felt certain a study of those cases done in the last five years would show even more favorable incidence of five year cures, because of the use of antibiotics.

Smythe[10] lists the principles of surgical management of carcinomas of the colon as follows:

1. To have the patient in the best possible state of nutrition before any operation.
2. To operate only upon a bowel which is physically and bacteriologically clean.
3. To remove the growth with a wide margin on either side together with the adjacent mesentery and
4. To restore continuity either by immediate anastomosis or by the creation of a spur and its later destruction after the technic of Mikulicz.

In the last twenty years, we have been taught most forcibly that the careful preparation of the patient before operation is of great value in lowering the mortality in radical operations, and especially those performed upon elderly people. Our ability to raise their blood picture by frequent and adequate transfusions; our ability to have 1000 to 1500 cubic centimeters of blood on hand at the time of operation; and our ability to restore their state of nutrition, if possible, by giving them a high protein, high carbohydrate, low fat diet; along with sufficient compliment of vitamin material to aid in the healing of their wound, in order to restore their reserve and improve their status of endurance, are all factors in recovery.

Careful preparation of the intestinal tract is essential before operation. Where obstruction is not complete, adequate sterilization of the bowel is effected by use of sulfonamides and streptomycin. Other factors are: keeping the patient on a low residue diet, having the intestinal canal empty at the time of operation, and maintaining the patient's electrolytic balance by giving fluids parenterally.

Antibiotics of penicillin and streptomycin usually counteract peritonitis. We do not count upon drugs to take the place of technic in the gentle handling of abdominal viscera; and the maintenance of good antisepsis.

In cases of complete intestinal obstruction, we use decompression; by non-surgical means, in the form of intestinal tubes; and by the actual surgical procedure of performing a cecostomy, or transverse colostomy, to deflate the intestines; and then at a future date, operate when the patient has been adequately prepared.

Garlock[11] makes this interesting comment:

Some years ago, there occurred in this country a revival of old operative procedures designed to preserve normal sphincteric action in the treatment of cancer of the rectum and recto-sigmoid. Prior to that time the important contribution of Miles with respect to the three zones of spread from the original tumor site, was a major factor in the almost universal adoption of the operation of abdomino-perineal resection.

However, Westhues in 1934, using the more efficient Spalteholzes' clearing method, reported only one instance in 74 cases, of spread to the lymph nodes distal to the tumor site. When this work was confirmed, there developed some increased considerable doubt as to the necessity for carrying out as radical an operation as the abdomino-perineal resection in every instance of cancer of the rectum and recto-sigmoid. Evidence was accumulating to substantiate the views that operative mortality rates were dropping in the surgery of colonic cancers with the more extended use of sulfonamides, and the then newly discovered penicillin.

The operation of anterior resection was perfected mainly by Dickson and Wangensteen, and the chief proponents of the posterior resection operation have been Babcock and Bacon. Although Garlock and his group have for many years been strongly in favor of the operation of abdomino-perineal resection, and felt that sentimental consideration for the analsphincter should never prevent the surgeon from carrying out as radical operation for cancer as he could perform, to offer each patient every possibility of cure. They decided in 1943, to perform the operation in a series of patients to appraise the efficiency of the procedure as a radical operation. Results clearly indicate the place that this operation should occupy in the therapy of this disease, and definitely establish the limitations of the procedure.

They bring out the diversified description of the exact location of the recto-sigmoid and they show how some authors state that the site of the reflection of the anterior rectal peritoneum to the bladder in the male, and the vagina in the female, marks the position of the recto-sigmoid, while others and probably more accurately, place the site of the peritoneal reflection laterally to the pelvic wall, at the point where the meso-sigmoid ceases to exist.

They also show there is considerable variation in the distance between the anus and the recto-sigmoid, as measured by sigmoidoscopic examination. This distance varies between 9 and 15 centi-

10. Smythe, Calvin M.: On page 618 of *Postgraduate Gastro-Enterology*. Edited by Henry L. Bockus. Saunders, Philadelphia (1950).
11. Garlock, John H.: Surgery, Gynecology and Obstetrics, 90:150 (May 1950).

meters. The operation of anterior resection is in large part connected with the anatomic location of the recto-sigmoid.

They believe that the surgical recto-sigmoid is located at that area where the meso-sigmoid ceases to exist as such, where the peritoneum instead of encircling the bowel, leaves the posterior and lateral aspect and merges with the pelvic peritoneum, and where the inferior mesenteric vessels, now the superior hemorrhoidals, leave the mesentery of the sigmoid colon and arrive behind the bowel. In most individuals, this point lies opposite the second or third sacral segment. In a person of average heighth and average shape pelvis, the recto-sigmoid is located between six and eight inches from the anal margin.

More recently they have measured the exact location of the recto-sigmoid, at the operating table, using a calibrated rectal bougie centered into the rectum after the abdomen was opened, and its tip projected to the exact location of the recto-sigmoid, and the site of emergence at the anal margin marked and measured, after the bougie was withdrawn.

They find that, other than the location of the carcinoma in rectum with respect to distance from the anal margin, and the results of follow-up studies after the operation is over, there are no preoperative or operative criteria, which can guide the surgeon in choosing between anterior resection and the abdomino-perineal resection of Miles.

Among Garlock's 163 cases,[11] there were 6 postoperative deaths, a mortality of 4.6 per cent. To appraise the operation, from various levels of the rectum, they started at 3 inches from the anus, to indicate the lower level of each tumor as demonstrated, on sigmoidoscopy. Each level of one inch was separately grouped.

In the 122 survivors, there were 12 patients with tumors in the 3 to 4 inch level. Only one specimen showed lymph node involvement, and this node was one inch below the lower level of the tumor. In this case, local recurrence was noted six months later, resulting in death.

Another specimen presented penetration of the tumor to the peri-rectal fat. This patient developed recurrence at the suture line 15 months later, and subsequently succumbed. The third patient without penetration or node involvement, developed a recurrence at the suture line and died later. The fourth developed a small recurrence in the mucosa of the posterior suture line, three and one-half years after the operation, and an abdomino-perineal resection was done four months later and no penetration or node involvement was evident in the specimen. There were 14 patients with growths in 4 to 5 inch level:

Three had lymph node involvement: one showed spread to the peri-rectal fat, and two developed recurrence at the suture line in ten months, and subsequently died. One died of recurrence in the pelvis after six months. Three developed local recurrence at the anastomosis in six, twelve, and twenty-one months respectively, and died. One patient died three and one-half years later of hepatic and pulmonary metastasis. The remaining six patients were alive and well: two for three years, three for two and one-half years, and one for nine months after operation.

In this group, the rate of recurrence at the suture line was 36 per cent; and in the pelvis, 7 per cent. In the previous group, the local recurrence rate was 30 per cent.

There were 29 patients with growths at the 5 to 6 inch level:

Two had palliative resections, inasmuch as hepatic metastases were noted at the time of operation. Six presented lymph node spread: two developed recurrence at the suture line in seventeen to fourteen months postoperatively; two died six to ten months later of a recurrence in the pelvis; one was well after nine months, and one had a stricture of the suture line.

In the group of 21 patients without node spread: two died of hepatic metastasis fifteen and sixteen months later, one developed a recurrence at the suture line at twelve months, and another a recurrence in the pelvis at fourteen months. The remaining 17 patients were alive, and apparently well: 36 to 42 months in two cases, 30 to 36 months in three cases, 24 to 30 months in five cases, four cases in 16 months, 9 months, 8 months, and 7 months, and six months in three cases.

The recurrence rate at the suture line was 10 per cent; and the recurrence rate in the pelvis was the same.

There were 66 cases of tumor at the 6 to 8 inch level, at which level Garlock represents the recto-sigmoid area as demonstrated by measuring with the rectal bougie, at the operating table. Fourteen of these cases disclosed node involvement, two also presented local peritoneal implant, and the patients died of recurrence in the pelvis four months to one year later.

The incidence of recurrence at the suture line in this group was two in 60 patients, or 3.3 per cent. While, if the recurrence rate in the pelvis of 1.6 per cent was included, the ratio would be 4.9 per cent. There is a total of 163 patients, with 12 deaths, or an operative mortality of 7.2 per cent.

Of 151 survivors, twenty came within the three to four inch level. The recurrence rate at the suture line was 27 per cent. The recurrence rate in the pelvis was 11 per cent.

In most of these cases, anterior resection was done because the rectal tumor was small, and therefore, seemed suitable for an operative procedure to preserve the sphincter.

In the group of nineteen cases located at the four to five inch level, the recurrence rate at the suture line was 41 per cent, while the recurrence rate in the pelvis was 12 per cent. As the distance from the anus increased, the local recurrence rate fell markedly.

In the group of thirty-one patients with the tumors located at five to six inches, the recurrence rate at the suture line and in the pelvis, was 10 per cent.

The largest group of the series comprised the tumors located at the six to eight inch level, or what Garlock takes to represent the recto-sigmoid area. In this group of 81 patients, the recurrence rate at the suture line was 4.4 per cent, and 1.4 per cent, in the pelvis.

In the consideration of the problem of malignancy of the rectum and recto-sigmoid, with respect to the sphincter saving operation, Garlock and Ginzburg point out they purposely separated the rectum into various levels from three inches from the anal margin, and they feel there is reliable statistical evidence to support the view that any operation short of abdomino-perineal resection (for growths below the three inch level) cannot be considered radical enough to meet the requirements of good cancer surgery. They concur in the observation of David and Gilchrist.

Sphincter saving operations should rarely, if ever, be used in cancers of the rectum below the level of five inches from the anal margins, because of inability of the surgeon to excise sufficient rectum, distal to the tumor, to meet the requirements of radical treatment demanded in the performance of good cancer operation. However, it is not necessary to perform an abdomino-perineal resection for all cancers of the recto-sigmoid. It is possible to carry out as thorough a cancer operation with preservation of the sphincter, with a negligible incidence of local recurrence. Garlock and Ginzburg admit that as time goes on, in all probability further follow-up observations in the group of their cases, will probably show a steady increase in local recurrences. They have given up the operation of anterior resection, except under very unusual circumstances in the treatment of cancer of the rectum proper, using it when local conditions permit, for cancer of the recto-sigmoid.

Thus, great improvements have occurred in the management of lesions of the colon and rectum, especially in the last twenty years. However, the anatomy has not changed, nor have diseases of the colon and rectum become any less severe, nor have surgeons become suddenly more expert. But, with the increasing knowledge of the characteristic of each disease of the colon and rectum, and in more careful application of the physiologic principles involved, there has occurred a lowered mortality, an increased scope of operability, and an increase in the curability of the patients suffering with colonic affections, today. Credit must also be given to allied branches, such as roentgenology, the increasing knowledge of pathologists (with a better understanding of the lymphatic spread) improved anesthesia, careful and adequate pre-operative preparation, and the use of sulfonamide drugs. With all this, there is still vital need for early diagnosis of lesions of the colon. We can all realize the tragedy of the late cases, when the history indicates symptoms for six months to a year, and many of the patients had previously consulted physicians.

Let us as a group of physicians, be ever more diligent and thorough in our examinations, particularly of patients within the age bracket in which malignancy is common.

I have thus brought to you the present concept of many of the prominent men in surgery today, based upon scientific knowledge and practical application of all that modern surgery offers, and their selection of the procedures needed to safeguard the patient and give to him the longest span of life expectancy possible. This, I feel, is more worth while to you than to recount any of my personal experiences with diseases of the colon.

538 Cooper Street

NEW JERSEY FORMULARY—6th EDITION

The New Jersey Formulary, 6th Edition, will soon be distributed to all physicians and pharmacists in New Jersey. This edition, like its predecessors, represents the efforts of the members of the Joint Committee on Professional Relations. This committee is composed of practicing physicians and pharmacists representing their respective organizations. The objective of the *Formulary* is to provide prescriptions which can be used in everyday medical practice and which can be made up readily in the average pharmacy.

JOHN L. VARRIANO, M.D., Chairman,
Joint Committee on Professional Relations.

THE TECHNIC OF RADICAL MASTECTOMY*

DONALD T. BOSCH, M.D., and LAWRENCE G. BEISLER, M.D., Newark, N. J.

The importance of a properly performed radical mastectomy can be appreciated only in view of the following facts:

1. Mammary carcinoma is the most frequent type of cancer known to man. In females it is nearly twice as common as any other malignancy.[1]
2. Almost 4 per cent of all adult women will develop carcinoma of the breast.[1]
3. In properly selected cases, the larger clinics are reporting 90 per cent five-year cures with radical mastectomy.[2] Many of these are probably permanent cures.
4. To date, radical surgery remains the only known cure for mammary carcinoma.

The four basic principles of radical mastectomy stated by Halsted[3] and Meyer[4] near the beginning of the century have remained undisputed by conscientious surgeons. These consist of:

1. Excision of a large area of skin over the breast.
2. Excision of both pectoral muscles.
3. Complete axillary dissection beginning at the apex.
4. Removal of the entire specimen en masse.

Since no radical operation is undertaken without definite diagnosis, most patients are subjected initially to incisional or excisional biopsy of the tumor and frozen section examination. This procedure is explained to the patient before induction of anesthesia so that in the event of malignant disease the radical operation may be undertaken without delay. The biopsy incision is closed tightly with a continuous suture inverting the skin edges. The biopsy area is then isolated from the operative field by any suitable means and the entire area is cleansed anew using fresh skin sterilization, clean drapes, instruments, gowns and gloves.

INCISION

The type of incision is based on the individual case. Incisions are planned on the basis of curing malignant disease since defects can be closed with skin grafts. The incision should never be within 5 centimeters of the tumor. Many surgeons believe it is satisfactory to leave sufficient skin for a plastic closure provided this does not comprise the basic principle of wide excision. According to White[5] there is no proof that grafting is better than plastic closure in avoiding skin recurrence. Rodman[6] has reported a local recurrence rate of only 2.2 per cent with plastic closure. Orr[7] finds that plastic closure can be made safely in most cases. However, most of the recent writers have advocated more extensive skin excision. Some authors use skin grafts routinely in all cases. Conway and Newmann[8] have shown that skin recurrence occurs no more frequently after plastic closures than after skin grafting. Nevertheless they recommend wider skin excision since 67.5 per cent of the skin recurrences following grafts are in the non-grafted area.

Numerous variations in the initial incision have been described. Some of the better known ones are illustrated in figure 1. No incision should be carried into the axilla since

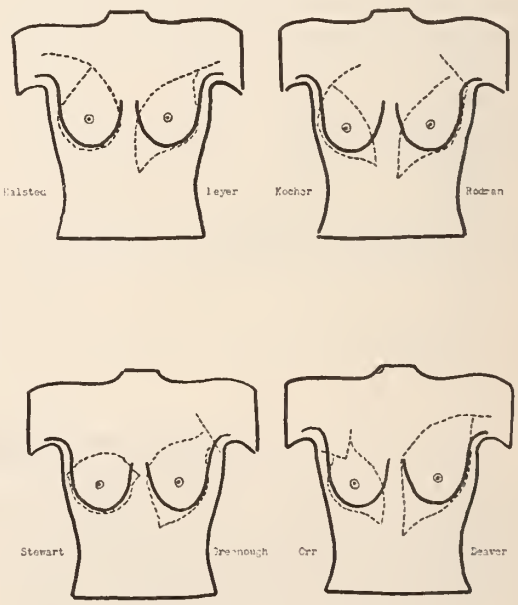


Fig. 1. Types of incisions for radical mastectomy.

* From the Department of Surgery and the Tumor Clinic, St. Barnabas Hospital, Newark, N. J.

this results in a vertical band of scar tissue which restricts arm motion.

After incision the skin flaps are raised in all directions. They should be raised medially to the midsternum, laterally to the margin of the latissimus dorsi muscle and the insertion of the pectoralis major tendon, inferiorly to the costal margin and superiorly to the clavicle and margin of the deltoid muscle. Haagensen[9] has pointed out the importance of thin skin flaps including only the skin and the areolar tissue lying above the superficial layer of the superficial fascia. The basis of this procedure is the fact that, embryologically, the breast is derived from skin glands. To be certain that all breast tissue is removed, sharp dissection of thin skin flaps is imperative. This has the added advantage of a dissection which is superficial to the subfascial blood vessels and assures the removal of the lymphatics accompanying these structures. Gentleness in dealing with the skin is a means of avoiding necrosis of the flaps.[10] Crushing or biting clamps in the preserved skin should be avoided. Sharp hooks may be used to advantage. Manual grasping of the skin with a sponge furnishes an excellent means of estimating the thickness of the flap and does not traumatize the cells. It is also wise to cover all areas not in the immediate operative field with warm wet sponges to avoid cooling and dehydration. Hot sponges damage cells and should not be used.

FASCIAL AND MUSCLE DISSECTION

The deep fascial layers about the shoulder girdle and axilla play an important part in the orderly management of radical mastectomy. They are schematically illustrated in Figure 2.

After elevation of the skin flaps, the superficial and deep fascial layers are incised down to the clavicle and clavicular head of the pectoralis major muscle. In this dissection the cephalic vein passing between the pectoralis major and the deltoid muscles is identified and preserved. The clavicular head of the pectoralis major muscle is cut from the clavicle and the pectoralis major tendon is cut at its insertion into the humerus. This exposes the coracoclavicular membrane over the coracoid process and pectoralis minor muscle. Some surgeons do not remove the clavicular head of the pectoralis major muscle. In view of the lymphatic carrying fascial planes in this area, the slight additional dissection seems wise.

The coracoclavicular membrane is next incised and the tendon of the pectoralis minor severed from the coracoid process. The major portions of the pectoralis muscle origins are dissected free from the sternum and anterior

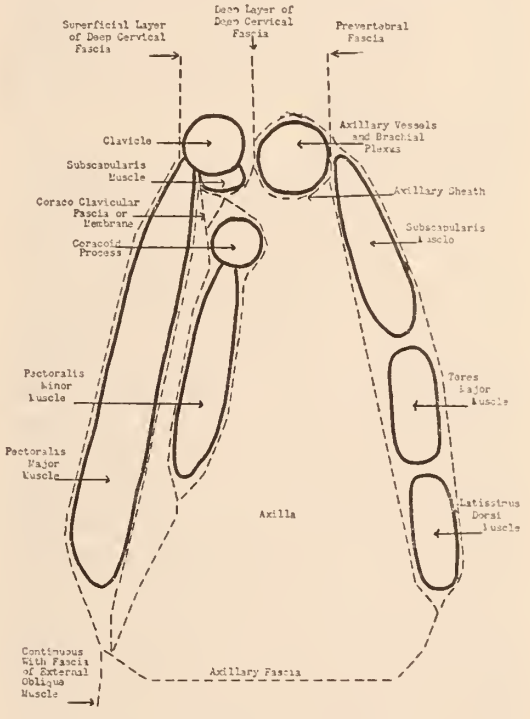


Fig. 2. Schematic Representation of the Deep Fascial Layers Involved in the Performance of Radical Mastectomy.

chest wall with ligation of all perforating branches of the internal mammary vessels. If an assistant elevates the muscle, the perforating vessels frequently can be seen and clamped before cutting. These vessels must be handled carefully because they retract readily behind the intercostal muscle fascia and may be difficult to find and secure. The deep fascia is excised to the midsternum. This cuts the parasternal route for possible embolic dissemination of cancer cells. It also allows the weight of the specimen to fall away from the chest wall, minimizing the need for tissue handling. Manipulation of the tissues should be very gentle to avoid dislodgement of cancer em-

boli. When the digitations of the serratus anterior muscle are encountered, the fascia over this muscle should be removed thus eliminating the lymphatic trunks which lie within the fascia.

AXILLARY DISSECTION

A dissection of the axilla is now undertaken. It is begun high in the axilla along the subclavian and axillary sheath behind the clavicle. All fascial, lymphatic and areolar tissues are removed beginning at the apex and working distally. All vessels encountered are separately ligated. It is wise to ligate vessels as they are cut to avoid pulling on clamps with resultant troublesome bleeding.

After progressing beyond the junction of the cephalic and axillary veins, a decision must be made relative to removing a segment of the axillary vein. Trimble[11] and Geschickter[12] advise excision of any portion of the vein involved by metastatic growth. They have stated that no unusual edema follows this procedure. MacDonald[13] has shown that axillary vein resection offers the possibility of diminished degrees of postoperative edema. The theoretical basis of this is that excision of the vein automatically removes the perivenous lymphatic channels which are the primary site for postoperative infection in the lymphatic system. Such infection follows fat necrosis and leads to axillary lymphangitis with sclerosis, obstruction and subsequent lymphedema. MacDonald[13] points out the increased extirpative possibilities afforded by resection of the vein and suggests that the classical Halsted operation may be an incomplete procedure.

Our own experience with axillary vein resection is limited. None of the patients developed arm edema in the immediate postoperative period but two subsequently developed moderate edema of the upper arm. We have been impressed with the results of these cases and are presently planning a series for further evaluation.

If the axillary vein is to be resected it should be severed as soon as the dissection has reached the termination of the cephalic vein. Resection of the vein makes removal of axillary contents easier and allows a more radical extirpation of axillary lymphatic structures. The arteries, which are stronger, can be attacked more readily than the thin walled veins. It is of interest to note the immediate dilatation of the cephalic vein when the axillary vein is ligated.

Whether or not the axillary vein is resected, the axillary sheath and all lymphatic structures must be removed. The axillary lymph nodes tend to lie in five groups commonly spoken of as the apical, brachial, pectoral, subscapular and central groups. The apical group lie along the upper portion of the axillary vessels. Their efferents drain into the subclavian lymphatic trunk and therefore involvement of these nodes is a bad prognostic sign. We have made a practice of marking the apical nodes with a black silk suture for identification by the pathologist who in turn makes serial sections to determine possible malignant involvement. Thorough removal of all lymph nodes is essential to give maximum opportunity for a cure. The patient's chance for recovery is in proportion to the number of nodes removed.[14] Although a gland may appear clinically to be uninvolved it may easily contain cancer cells. Saphir and Amromin[15] have demonstrated that if serial sections of the axillary nodes are made following radical mastectomy, an additional 33 per cent will be found to contain carcinoma.

The principal arteries which must be ligated and divided are the highest thoracic to the pectoralis muscles, the thoracoacromial to the deltoid and pectoralis muscles, the lateral thoracic to the serratus anterior and pectoralis muscles and the subscapular to the subscapularis muscle.

A large number of nerves are encountered in radical mastectomy. The brachial plexus is carefully dissected and its main trunks preserved. The intercosto-humeral nerves and the lateral cutaneous branches of the intercostal nerves are routinely sacrificed. The medial and lateral anterior thoracic nerves to the pectoral muscles are likewise removed. The subscapular nerves which arise from the posterior cord and supply the subscapularis muscle may

be preserved if free from disease. Likewise the long subscapular nerve (thoracodorsal) to the latissimus dorsi muscle may be preserved but should be sacrificed if there is any question of involvement. Haagensen[16] believes the thoracodorsal nerve should be removed if the axillary nodes are clinically involved. All surgeons agree that whenever possible the long thoracic nerve (external respiratory nerve of Bell) should be saved. This nerve descends behind the brachial plexus on the lateral surface of the serratus anterior muscle and normally can be spared without compromising a thorough dissection. In the Greenough technic,[17] the long thoracic nerve was not lifted from its bed since this destroys the individual fibers to the digitations of the serratus anterior muscle.

As the operation nears completion the lower fibers of the pectoralis major muscles are removed from the anterior chest wall. Inferiorly the dissection should include the upper 5 to 10 centimeters of the anterior rectus sheath. Ever since Handley[18] demonstrated the lymphatic pathways in fascia, removal of the upper anterior rectus sheath has been an accepted part of radical mastectomy. Any remaining attachments along the latissimus dorsi muscle are cut and the complete specimen is removed en masse. The entire field is washed with several liters of saline or sterile water to remove loose tissue and reveal small bleeders.

BLOOD VOLUME REPLACEMENT

Perfect hemostasis must be accomplished before closure. These patients cannot afford unnecessary blood loss. In our cases subjected to radical mastectomy, the average pre-operative blood volume deficit was 1382 milliliters as determined by the T-1824 dye method.[19] If an assumed loss of 500 milliliters occurs at operation, it is evident that the average patient needs 1500 to 2000 milliliters of blood in the immediate pre-operative period or during the operation. We replace all blood volume deficits pre-operatively and then make up operative losses during the procedure.

CLOSURE

The method of closure will depend on the initial incision and the amount of skin preserved. An interrupted technic should be used and the flaps closed without tension. Where the skin edges do not readily approximate, a skin graft is cut to fill the defect. A stab wound is placed in the most dependent portion of the axilla and a Penrose drain inserted. Sometimes it is well to place several sutures between the skin flaps and the intercostal muscles to keep the skin snugged against the underlying tissues and help close the dead space. A voluminous dressing is applied using marine sponge or mechanics waste. The dressing is normally changed 48 hours postoperatively at which time the drain is removed.

A thorough radical procedure cannot be accomplished without a relative disregard for the operating time. Modern advances in anesthesia preclude this factor as an excuse for hurry. Careful pre-operative preparation renders these patients capable of tolerating prolonged operations without shock. Haagensen and Stout[20] in 1942, reported a large series of cases done by at least 36 different surgeons. Their report showed a significant increase in the five-year clinical cure rate in operations requiring three hours or more to perform. A thorough dissection will eventually be rewarded by a larger number of contented, living patients.

CONCLUSION

To the enviable physicians of the future belong the joy of seeing all mammary cancer cured by some yet-to-be-discovered means. It remains for us to utilize to its fullest extent our present armamentarium which consists of early diagnosis, careful pre-operative build-up, thorough operative technic and coordinated post-operative follow up.

15 Washington Street

A bibliographic list of 20 citations appears in the authors' reprints.

ANGINA OF EFFORT

ITS TREATMENT WITH CRYSTALLINE KHELLIN

HENRY L. DREZNER, M.D., Trenton, N. J., and
STEVEN HOROSCHAK, B.S., Ridley Park, Penna.

The anginal syndrome is a physiologic condition characterized by substernal pain or by pain immediately to the left of the sternum. Cardiac pain in patients with angina[1] is due to myocardial anoxia as a result of coronary artery disease.[2] The pain is said to occur when there is a discrepancy between the myocardial demand for oxygen and the supply brought by the coronary circulation.[3]

Nitrates and nitrites have proved effective in the treatment and control of the anginal syndrome. Basic action of the nitrite ion in the body is to relax smooth muscles,[4] especially those of the finer blood vessels. Chief therapeutic use of nitrites is to relax the coronary vascular tree[5] in the relief of angina pain. These compounds, however, produce certain side effects which necessitate caution. Tolerance to nitroglycerin is readily established, often in two to three days. The dose must then be increased or the response disappears. Blood pressure and pulse rate are influenced by the nitrites. Thus a drug which would be effective in angina pectoris without these side effects would be a valuable addition to the physician's therapeutic armamentarium.

The following criteria[6] for an ideal vasodilator drug have been suggested:

1. It should have a consistent and sustained action.
2. It should act by dilating the arterioles over all the constricted area.
3. It should not give rise to unpleasant symptoms or side effects.
4. It should maintain the normal functions of the organs, particularly of the heart and kidney.

Khellin, a compound isolated from the plant *Ammi visnaga,* has been suggested[7] for the treatment of angina.[8] Mustapha,[9] as early as 1879, isolated khellin in an impure form. Pure khellin was isolated by Fantl and Salem[10] who determined its composition and designated it chemically as dimethoxymethylfuranochromonse. It has been reported[11] that this compound has coronary and broncho-dilating activity. That khellin causes a conspicuous dilatation of the coronary blood vessels has been demonstrated.[12] This action on the coronary vessels is apparently a selective one.[13]

The pharmacologic and biologic actions have been thoroughly investigated.[14, 15, 16]

Khellin causes relaxation of the bronchi in the isolated lung and diminishes intestinal tone in the whole animal. It is rapidly absorbed from the small intestine, stomach and large intestines, and disappears from the blood and tissues at a very slow rate. Repeated administration leads to its accumulation in the body.[14] This must be considered in establishing the dosage.

The clinical application of khellin in the treatment of anginal syndrome was reported by Kenawy and Barsoum[7] and later by Anrep

1. Hamman, L.: Heart Pain of Organic Origin. International Clin.. 2:157 (1935).
2. Keefer, C. S., and Resnik, W. H.: Angina Pectoris Syndrome Caused by Anoxemia of Myocardium. Arch. Int. Med., 41:769 (June 1928).
3. Lewis, T.: Pain in Muscular Ischemia. Its Relation to Anginal Pain. Arch. Int. Med., 49:713 (May 1932).
4. Katz, L. N., Linder, E., Weinstein, W., Abramson, D. I., and Jochin, K.: Effects of Various Drugs on the Coronary Circulation of the Denervated Isolated Heart of the Dog and Cat. Arch. Internat. de pharmacodyn. et die Therap., 59:399 (1935).
5. Essex, H. E., Wegria, R., Herrick, J. F., and Mann, F. C.: The Effect of Certain Drugs on the Coronary Blood Flow of the Trained Dog. Amer. Heart Jr., 19:554 (May 1940).
6. Weiss, S., and Ellis, L. B.: Influence of Sodium Nitrite on Cardio-Vascular System and on Renal Activity in Health, in Arterial Hypertension and in Renal Disease. Arch. Int. Med., 32:105 (July 1933).
7. Kenawy, M. R., and Barsoum, G. S.: Ammi Visnaga in the Treatment of Angina Syndrome. Gaz. Faculty Med. Cairo, 13:39 (1945).
8. Anrep, G. V., Barsoum, G. J., Kenawy, M. R., and Misrahy, G. S.: Therapeutic Use of Khellin. Method of Standardization. Lancet, 1:557 (April 26, 1947).
9. Mustapha, I.: Ammi Visnaga. Cairo R. Acad. Sci., 89:442 (1879).
10. Fantl, P., and Salem, I. S.: Chellol Glucoside. Biochem. Ltschr., 227:166 (1930).
11. Samaan, K.: The Pharmacological Action of Visammin. Quar. Jr. Pharm. and Pharmacol., 5:6 (Jan.-March 1932).
12. Anrep, G. V., Barsoum, G. S., Kenawy, M. R., and Misrohy, G.: Ammi Visnaga in the treatment of anginal syndrome. British Heart Jr., 8:171 (Oct. 1946).
13. Anrep, G. V., Kenawy, M. R., Barsoum, G. S.: Coronary Vasodilator Action of Khellin. Amer. Heart Jr., 37:531 (April 1949).
14. Barsoum, G. S., Kenawy, M. R., and El-Shihi, A.: Absorption of Khellin and its Estimation in Blood and tissues. Jr. Royal Egypt. M. A., 30:312 (June 1947).
15. Anrep, G. V., Barsoum, G. S., and Kenawy, M. R.: The Pharmacological Actions of the Crystalline Principles of Ammi visnaga Lynn. Jr. Pharm. and Pharmacol., 1:164 (1949).
16. Anrep, G. V., Kenawy, M. R., Barsoum, G. S., and Fahny, I. R.: The Biological Action of the Crystalline Principle of Ammi visnaga. Gaz. Fac. Med Cairo, 14:1 (1947).

et al.[8] These reports were confirmed by Ayad[17] with success in 82 per cent of his cases. In an extensive report on the use of khellin in angina pectoris, Anrep *et al.*[13] presented 250 cases. Of these 140 manifested distinct improvement, 85 moderate and 25 showed no clinical improvement. These investigators stated:

"Khellin can be used continuously in the treatment of angina pectoris and also for the relief of individual attacks of pain. It can be administered orally in doses of 50 to 100 milligrams three times per day, or as an intramuscular injection in doses of 100 to 200 milligrams. The drug produces a few side effects but is not toxic even after prolonged administration. It does not affect the bleeding or coagulation time. No habituation to the drug seemed to occur. Even after the drug was used for two years, it was still effective. No toxic effects were encountered during its trial for such periods."

A decrease in the frequency and severity of anginal attacks in 84 per cent of patients treated was reported by Osher and Katz.[18] Favorable results were obtained by Dewar and Grimson[19] in preventing "angina of effort" in 12 patients. Rosenman *et al.*[20] concluded that khellin has definite therapeutic effect in angina pectoris, chronic *cor pulmonale,* and possibly in acute bronchial spasm.

A comparison of khellin, (visamin) in daily doses of 100 and 150 milligrams and lactose in 39 patients with angina pectoris for a total of 2952 days revealed no difference between the two agents in the proportion of days placed in each category, according to Greiner and Gold.[21]

Reports thus indicate that: (a) The action of khellin is much more prolonged than that of amyl nitrite; (b) the action on the coronary vessels is a selective one; (c) kidney function is not impaired by prolonged administration; (d) coagulation and bleeding time are not affected; (e) blood pressure, pulse rate and respiration are unaffected by doses up to 200 milligrams and; (f) side effects are minimal. For these reasons we evaluated this drug in a series of carefully selected cases.

Pure crystalline khellin (Ammivin*) was made available in 50 milligram uncoated tablets and in 20 milligram salol coated tablets for clinical study.

Twenty-one patients representing 18 with angina pectoris syndrome, 2 with "coronary spasm" and 1 with duodenitis were treated as ambulatory patients with khellin (Ammivin*).

A careful medical survey was made in each case. We were thoroughly familiar with the characteristic of their symptoms. The exercise tolerance test was used to measure their capacity for activity. Electrocardiographic studies were done before khellin treatment was started and several times during the period of treatment. Complete blood counts were made at intervals in all cases. The doses of nitroglycerin and papaverine to maintain the patient in comfort were relatively established in each case of angina pectoris.

The khellin (Ammivin*) was first supplied in the form of uncoated tablets, and employed in divided doses up to 200 milligrams by mouth daily. Enteric coated tablets (20 milligrams each) were made available about two months after the study was started. We prescribed one to two of these tablets after meals and at bedtime. No changes in the patients' daily routine were ordered, excepting discontinuance of all other medication. The patients were seen at least once weekly and their progress recorded.

When improvement became apparent, the dose of Ammivin* was reduced to a maintenance level of one 20 milligram enteric coated tablet after meals in most of the patients.

RESULTS

Definite clinical improvement was manifested in 12 of the 18 angina pectoris cases. The exercise tolerance capacity was increased in these patients. Only an occasional nitroglycerin tablet was required in most of the patients and several did not require this medication at all. No apparent effect on the blood pressure and pulse rate could be ascribed to khellin (Ammivin*). Electrocardiographic

*Ammivin was supplied by the Medical Research Department, The National Drug Company, Phila., Pa.

17. Ayad, H.: Khellin in angina pectoris. Lancet., 1:305 (Feb. 21, 1948).
18. Osher, H. L., and Katz, K. H.: Khellin in the Treatment of Angina Pectoris. Boston Med. Quart., 1:11 (March 1950).
19. Dewar, H. A., and Grimson, T. A.: Khellin in the Treatment of Angina of Effort. Brit. Heart Jr., 12:54 (Jan. 1950).
20. Rosenman, R. H., Fishman, A. P., Kaplan, S. R., Levin, H. G., and Katz, L. N.: Observations on the clinical use of Visamin (Khellin). J.A.M.A., 143:160 (May 13, 1950).
21. Greiner, T., and Gold, Harry: A Method for the Evaluation of the Effect of Drugs on the Cardiac Pain of Angina of Effort. A study of Khellin. Abst. Amer. Soc. Pharmacol and Exptl. Therap. Fall Meeting, Indianapolis (Nov. 1949).

studies revealed no appreciable change in those cases in which such studies were made. Blood counts showed only minor variations of no significance.

The coronary spasm in one of the patients was probably related to tobacco toxemia. In this case, the khellin (Ammivin*) produced temporary relief. The medication had to be discontinued because of gastric disturbances. In this patient the uncoated 50 milligram tablets of Ammivin* were used which may have accounted for the patient's reactions.

The second case of coronary spasm gave an excellent response on 20 milligram enteric coated tablets. There were no gastric disturbances or any other side effect.

In the patient with duodenitis, there was no relief from the substernal pain, and the patient did not experience any side effects. Here again, the enteric coated tablets were used for medication.

REACTIONS

Uncoated tablets (50 milligrams each) were used when this study was started. Most of the patients developed nausea, anorexia, "light headedness", and, in some instances, moderate flushing. Several patients discontinued the medication because of gastro-intestinal disturbances.

About two months after this study was started, an enteric coated 20 milligram tablet of Ammivin* was made available. This tablet practically eliminated the side effects experienced with the uncoated tablet, and patients were adequately controlled clinically on 20 milligrams (enteric coated) three to four times daily.

COMMENT

We appreciate the difficulties in evaluating the effect of drug therapy in the anginal syndrome. However, the value of therapy can be measured only in terms of the patient. The most common precipitating factor in angina is physical activity, and the only means of evaluating the drug is by the increase in the patient's activity before the anginal syndrome is precipitated.

Our experience and observations lead us to believe that the pure crystalline khellin (Ammivin*) very nearly approaches the requirements of the ideal coronary dilating drug. It does have a consistent and sustained action; its selective action on the coronary vessels has been demonstrated; it gives rise to only mimimal side effects when used in 20 milligram enteric coated tablets; and it does maintain the normal functions of the heart and kidneys.

The value of Ammivin* therapy was based on objective evidence, that is, the effect it had on the work capacity and nitroglycerin requirements of each patient. This approach did not permit the patients to influence us by their impressions, since we were familiar with their work capacity and nitroglycerin requirements prior to Ammivin* treatment.

In 66.6 per cent of the angina pectoris cases, exercise tolerance capacity was definitely increased. In most of these patients, the need for nitroglycerin was eliminated while on Ammivin* therapy; in a few, nitroglycerin was needed only occasionally. These objective improvements should be considered indicative of the therapeutic effectiveness of Ammivin* in angina of effort.

SUMMARY

1. Medical management of angina of effort can be successful in most cases by using khellin. Good therapeutic results are dependent on the use of pure crystalline khellin, individualization of dosage and khellinization with minimum side effects.

2. Ammivin*, 20 milligram enteric coated tablets offered desired advantages over uncoated tablets. Khellinization was obtained with smaller doses and minimal side effects, none severe enough to cause interruption of treatment. The smaller doses of Ammivin* (20 milligram after meals) and the enteric coating apparently reduced the tendency to the usual side effects experienced with uncoated tablets and larger doses.

3. Ammivin* should be an important addition to the physician's armamentarium for the treatment and control of "angina of effort".

216 W. State Street

STATE ACTIVITIES

TRUSTEES' MEETING

JANUARY 14, 1951

The following actions were taken at the regular meeting of the Board of Trustees on January 14, 1951, held at the Executive Offices, Trenton.

(1) Report of A.M.A. Delegates approved (See page 120).

(2) The Medical Society of New Jersey is to act as host to the delegates of the A.M.A. at a dinner during the June 1951, Atlantic City session, at a cost to the Society not to exceed $2000.

(3) Memoir on Dr. Lee approved (See page 121).

(4) Resolution of Joint Committee for the Improvement of the Care of the Patient approved (See page 124).

(5) Present Advisory Committee on School Health discontinued; functions to be taken over by an appropriate special committee to be established by the Trustees.

(6) President and Chairman of Board appointed to fill unexpired terms of Dr. Norton and Mr. Bryan on Permanent Special Committee on Medical-Surgical Plan.

(7) Recommendation of General Practice Committee that each county society appoint a Compensation Committee approved; function of Committee to settle disputes or differences between assurer and physician.

(8) Fundamental Facts about Tuberculin Testing in Children and High School Students, recommended by Advisory Committee on Chest Diseases endorsed; and that these "Fundamental Facts" be incorporated in a release to school boards, school physicians and school administrators and be paid for by the State Tuberculosis League (See page 123).

(9) Definitions of Pulmonary and Non-Pulmonary Tuberculosis, recommended by the Advisory Committee on Chest Diseases, approved (See page 121).

(10) Recommendation of Maternal Welfare Committee approved that the New Jersey State Department of Health be requested to resume doing blood typing and Rh factor on all prenatal patients.

(11) Recommendation of the Rehabilitation Committee approved that the lack of a program in New Jersey for the care of children with cleft palate and harelip be brought to the attention of the Crippled Children Commission, the State Department of Health and any committee of the Society interested in this type of handicapped child.

(12) Executive Committee appointed by the Board of Trustees consisting of five members: President, Immediate Past-President, President-Elect, Chairman of the Board of Trustees, and one elected Trustee to be appointed by the chairman; for the remainder of this administration the Committee to be composed of the President, who will act as chairman, President-Elect, First Vice-President, Chairman of the Board and one elected Trustee to be appointed by the chairman. Dr. Schaaf named Chairman.

(13) Staff Policies Committee appointed consisting of three members: Chairman of the House Committee, Secretary and Treasurer; Committee to be available for any advice on complaints or matters pertaining to staff policy and be responsible for the activities of the various members of the staff and to see that they fulfill their assigned duties.

(14) Dr. Joseph E. Mott, Paterson, appointed temporary part-time Executive Secretary, Subcommittee on Public Relations.

(15) Mr. Richard I. Nevin, Jersey City, employed as full-time Executive Officer of The Medical Society of New Jersey; term of office to begin February 1, 1951.

(16) Position of Executive Assistant abolished; position of Administrative Secretary created and Mrs. Madden appointed as Administrative Secretary.

(17) Resolution on hospital building programs approved (See page 124).

(18) Nomination of Dr. Joseph F. Londrigan as a member of the Hospital Advisory Board of the State Department of Institutions and Agencies, reaffirmed.

(19) Co-sponsorship of a one day Cancer Institute for Nurses presented by New Jersey Division of the American Cancer Society approved.

(20) Request of New Jersey Chapter of the National Society for Crippled Children and Adults, Inc., for simplified post office address for use in their 1951 Easter Seal campaign endorsed.

CLEVELAND SESSION OF A.M.A.

The Interim Meeting of the A.M.A. held in Cleveland in December was attended by your full quota of delegates.

The final afternoon was devoted to activities of the National Education Committee. Reports were made indicating a satisfactory response to the advertising campaign in many sections of the country.

Highlight of this meeting was the address by the president of the Carpenters and Joiners Union in which he pledged the support of his group in the fight against compulsory health insurance. This is probably the first time any large union group has gone on record as favoring voluntary health insurance.

For some time the A.M.A. has been opposed to federal government subsidies to medical schools on the basis that the Government would ultimately interfere with operation of these schools. As an answer, the Trustees voted to appropriate a half million dollars as a nucleus for a medical school support fund. They also decided to initiate a program to influence private capital to support this movement. This action was unanimously approved by the House. Before adjournment of the House, a gift of $5000 was received to be added to the fund and also checks from several individual physicians.

No report was made by the Committee to which the New Jersey Plan had been referred. Informal discussion with Dr. Martin, Chairman of the Committee, informs us that they are convinced that the New Jersey Plan has many points of merit which, they feel, will receive favorable consideration. We hope for a report at the Atlantic City meeting.

Dr. Luce of Massachusetts was given the award as the outstanding general practitioner of the year.

Recommendation was again made that a federal Department of Health be developed to coordinate all federal health activities under one head, taking it out of the hands of the Social Security Administration.

A movement to grant to all past Presidents of the A.M.A. the right to vote in the House of Delegates was defeated.

Tennessee offered a resolution about the care of non-service connected disabilities, requesting the Government to provide pre-payment insurance policies for veterans in that category who are medically indigent. This matter has been up for discussion on several occasions. The Reference Committee recommends that we submit to the Government a set of principles under which the care of this group of veterans should be provided leaving Congress the technic by which these principles would be implemented.

The entry of the American Hospital Association into the program of standardization evoked considerable discussion. It was the consensus that the Hospital Association had no place in this program but due to the fact that the American College of Surgeons were ready to give up this work, the Hospital Association immediately decided to take it up. The Board of Trustees of the A.M.A. (in consultation with the College of Surgeons and the American Hospital Association) decided that all three agencies should participate. While it was the feeling that this should be handled by the A.M.A. and College of Surgeons, it was felt that a compromise was the most expedient solution of the problem at this time.

The secretary indicated that these Interim meetings are held at a considerable financial loss. There was some off-the-record comment as to the wisdom of continuing the meetings. However, in view of the fact that these meetings are held in relatively smaller cities than annual meetings and are arranged especially for the general practitioner, it was felt that the financial investment was justified, making this program available to more general practitioners.

In 1947 the New Jersey delegation introduced a resolution calling upon the A.M.A. to formulate a plan whereby medical students might be indoctrinated with the aims and philosophies of the profession. As a result of this resolution the A.M.A. set up a department for this purpose and assigned Mr. Leo E. Brown, a former secretary of the Pennsylvania State Society as its director. Mr. Brown is a progressive, dynamic gentleman. This program is of vital importance as there are already at work agencies inculcating into the minds of medical students philosophies not in harmony with the thinking of organized medicine.

Two of New Jersey's delegates were made members of important Reference Committees. They were Dr. J. W. Hurff and Dr. David B. Allman. Dr. Allman, in fact, was chairman of the Committee on Reports of Officers.

Your delegates attended all sessions.

Respectfully submitted,

WILLIAM F. COSTELLO, M.D., Chairman
DAVID B. ALLMAN, M.D.
ELMER P. WEIGEL, M.D.
J. WALLACE HURFF, M.D.
L. SAMUEL SICA, M.D.
JOSEPH LONDRIGAN, M.D.

MEMOIR — DR. LEE

Thomas Benjamin Lee died in the Cooper Hospital on October 17, 1950. During the last few years his health had necessitated a limitation of his physical activities, but he was mentally alert and continuously interested in medical affairs.

He was born in South Jersey and was educated in the public schools. He entered the Jefferson Medical College with the Class of 1904 but, because of an attack of typhoid fever, was graduated with the Class of 1905.

Realizing the importance of a rounded education he had the Camden City Librarian select a reading course for him. This he continued while in medical school and during his years of practice, because of his interest in English Literature, he acquired a wide knowledge of this subject.

He served as an intern in The Cooper Hospital and, before starting practice, spent several months in St. Thomas Hospital in London.

Success in practice in Camden was almost immediate because of his personality, ability, and willingness to work. After several years of General Practice, he decided that his main interest was in Obstetrics and Gynecology. He was associated with Dr. Baer in the Gynecology Department at Cooper Hospital and succeeded as head of the department on Dr. Baer's death.

He was successful in his specialty, acquiring the respect of his patients and, more important, the respect and confidence of his colleagues. He was a Fellow of the American College of Surgeons, a Diplomate of his specialty board, and a member of The Society of Surgeons of New Jersey.

He trained a number of gynecologists and surgeons and influenced many interns who served under him. He advised his interns not to think of the immediate future or even the next five or ten years, but to plan their lives so that twenty years from their internship they would be doing what they wanted. He told them that they might not achieve their goal, but they would have an enjoyable time striving toward it. And then he would quote from Stevenson that, "It is not so much in arriving at one's destination, as in journeying pleasantly". Some of his interns took his advice.

He served the State of New Jersey on the State Board of Health and in the New Jersey National Guard.

He was intensely interested in the control of cancer and served in various organizations dedicated to this purpose.

He was active in organized medicine serving as Secretary and President of the Camden County Medical Society and as a Delegate, Trustee and Chairman of the Board of Trustees of The Medical Society of New Jersey.

He took pride in his ancestry. Several of his ancestors were physicians who distinguished themselves. He had a great love for his family.

John Donne said in one of his sermons that, "No man is an island entire of itself: every man is a piece of the continent, a part of the main". This was especially true of Dr. Lee, because each intern who served under him, each physician who served with him, and each patient advised by him, partook of his personality so that no one of them would "send to know for whom the bell tolls".

DEFINITIONS OF PULMONARY AND NON-PULMONARY TUBERCULOSIS

1. All cases of tuberculosis must be reported to the local Board of Health. (Public Law, State of N. J., 26:4-15.)

2. Active tuberculosis defined from the public health viewpoint:

a. Pulmonary tuberculosis is to be classified as Active if *any one* of the following conditions has been met in the past six months.

1. Demonstration of tubercle bacilli in sputum by direct smear or concentrate.
2. Presence of cavity on x-ray.
3. Progression or regression of lesion by serial x-rays.
4. Other compatible clinical or laboratory examinations.

b. Non-pulmonary tuberculosis is to be classified as Active if *any one* of the following conditions has been met in the past six months.

1. Demonstration of tubercle bacilli in non-pulmonary tissue or exudate by any technic.
2. Other compatible clinical or laboratory examinations.
3. The information requested on this report is essential for effective tuberculosis control.

N. J. State Department of Health.

SOCIETY OF SURGEONS

The Society of Surgeons of New Jersey will hold its Spring meeting on Thursday, May 17, at the Sea View Golf Club.

THE INTERNATIONAL CODE OF ETHICS

The Third General Assembly of the World Medical Association, last year adopted an "International Code of Ethics". Though much shorter than the A.M.A.'s *Principles of Ethics*, it embodies the essence of an ethic acceptable to doctors of medicine everywhere. It is interesting to note the loop-hole provded in 3a where, apparently, in some countries "self-advertisement" may be authorized. Number 6 sounds strange at first, but if all medical witnesses and certificate-writers followed it, it would be well. The phrasing of number 12 is a bit quaint. Still, patient stealing is venal, even if it is dignified as "enticing". The "Declaration of Geneva" mentioned in number 13, is reprinted on page 92 of this issue.

1. A doctor must always maintain the highest standards of professional conduct.

2. A doctor must not allow himself to be influenced merely by motives of profit.

3. The following practices are deemed unethical:

(a) Any self-advertisement except such as is expressly authorized by the national code of medical ethics.

(b) Taking in any plan of medical care in which the doctor does not have professional independence.

(c) To receive any money in connection with services rendered to a patient other than the acceptance of a proper professional fee, or to pay any money in the same circumstances without the knowledge of the patient.

4. Under no circumstances is a doctor permitted to do anything that would weaken the physical or mental resistance of a human being, except from strictly therapeutic or prophylactic indications imposed in the interest of the patient.

5. A doctor is advised to use great caution in publishing discoveries. The same applies to methods of treatment whose value is not recognized by the profession.

6. When a doctor is called upon to give evidence or a certificate he should only state that which he can verify.

7. A doctor must always bear in mind the importance of preserving human life from the time of conception until death.

8. A doctor owes to his patient complete loyalty and all the resources of his science. Whenever an examination or treatment is beyond his capacity he should summon another doctor who has the necessary ability.

9. A doctor owes to his patient absolute secrecy on all which has been confided to him or which he knows because of the confidence entrusted to him.

10. A doctor must give the necessary treatment in emergency, unless he is assured that it can and will be given by others.

11. A doctor ought to behave to his colleagues as he would have them behave to him.

12. A doctor must not entice patients from his colleagues.

13. A doctor must observe the principles of "The Declaration of Geneva" approved by the World Medical Association.

FACTS ABOUT A.M.A. DUES

1. American Medical Association membership dues for 1951 are $25.

2. Fellowship dues for 1951 are $5, exclusive of membership dues.

3. American Medical Association membership dues are levied on "active" members of the Association. An "active" member is one who is entitled to exercise the rights of active membership in his constituent association, including the right to vote and hold office as determined by his constituent association, and who has paid his American Medical Association dues.

4. American Medical Association membership dues are payable through the county or constituent state medical society.

5. Fellowship dues are payable directly to the American Medical Association, 535 North Dearborn Street, Chicago 10, on receipt of the bill.

6. A dues-paying, active member is eligible for Fellowship and may request such status by direct application to the Secretary of the American Medical Association. Applications for Fellowship are subject to approval by the Judicial Council of the Association.

7. Commissioned medical officers of the Army, the Navy, the Air Force or the United States Public Health Service, and full-time permanent VA physicians, who have been nominated by the Surgeon General or Chief Medical Director, may become Service Fellows on approval of the Judicial Council. Service Fellows need not be members of county or state medical societies, nor the American Medical Association and do not pay Fellowship dues. They do not receive any publication of the American Medical Association except by personal subscription. If a local medical society regulation permits, a Service Fellow may become an active member of a county society. In that case he would pay the same member-

ship dues as any other active member and receive a subscription to The JOURNAL of the American Medical Association.

8. An active member of the American Medical Association may be excused from the payment of American Medical Association membership dues when it is deemed advisable by the national Board of Trustees, provided that he is excused from the payment of full dues by his county and state society. Three classes of members may be dues-exempt under this provision. They are:

(a) Members for whom the payment of dues would constitute a financial hardship as determined by their local medical societies. (b) Members in actual training for not more than five years after graduation from medical school. (c) Members who have retired from active practice.

9. Active members of the American Medical Association are not excused from the payment of American Medical Association membership dues by virtue of classification as "honorary" members, nor because they are excused from the payment of local and state dues. Active members may be excused from the payment of American Medical Association membership dues only under the provision described in paragraph 8 above.

10. American Medical Association membership dues include subscription to The JOURNAL of the American Medical Association. Active members of the Association who are excused from the payment of dues will not receive The JOURNAL except by personal subscription at the regular rate of $15 a year.

11. Member Fellows may substitute one of the specialty journals published by the Association for The JOURNAL to which they are entitled as members. A Fellow who substitutes a special journal will not also receive The JOURNAL.

12. A member of the American Medical Association who joins the Association after July 1 will pay membership dues for that year of $12.50 instead of the full $25.00 membership dues.

13. An active member is delinquent if his dues are not paid by December 31, and he forfeits active membership in the American Medical Association if he fails to pay the delinquent dues within thirty days after the notice of his delinquency has been mailed to his last known address.

14. Members of the American Medical Association who have been dropped for nonpayment of dues can not be reinstated until such indebtedness has been discharged.

15. The apportionment of delegates from each state society is one delegate for each thousand or fraction thereof, *dues paying active members of the American Medical Association* as recorded in the office of the American Medical Association on December 1 of each year.

FUNDAMENTAL FACTS ABOUT TUBERCULIN TESTING IN CHILDREN AND HIGH SCHOOL STUDENTS

1. There is no conflict between tuberculin testing and mass x-ray surveys—one supplements the other.

2. The tuberculin test tells us who has been infected.

3. It tells us whom to watch carefully.

4. It will lead us to a source of infection.

5. It alerts the positive reactor so that periodic x-ray examinations may be carried on well into adult life, thereby giving added assurance that should a destructive type of the disease appear it will be found later.

6. A non-reactor knows that he or she does not harbor living tubercle bacilli in his or her body.

7. We do not discover tuberculosis early by the x-ray.

8. The x-ray will find less than 10 per cent of cases of primary infection even in tuberculin positive students.

9. The incidence of positive tuberculin reactions in high school students is now about 10 per cent.

10. The use of the tuberculin test as a screening measure before doing a mass x-ray survey will reduce the cost of x-raying by at least 10 per cent.

11. Most authorities agree that the patch test is sufficiently reliable and offers many practical advantages over the intradermal in detecting existing infection with the tubercle bacillus.

12. The tuberculin test (either patch or intradermal), should be the first in searching for tuberculosis in children and adolescents.

RESOLUTION OF JOINT COMMITTEE FOR THE IMPROVEMENT OF THE CARE OF THE PATIENT

WHEREAS the growing momentum of prepayment hospitalization and medical-surgical plans and other causes are producing a reduction in the number of ward or service patients in most hospitals of this State; and

WHEREAS this trend seems certain to become more pronounced in the near future; and

WHEREAS the teaching of interns and residents in a number of hospitals has consequently been adversely affected; and

WHEREAS the preservation of the high quality of learning opportunities in internships and residencies may be placed in jeopardy by a reduction of the number, and perhaps type, of service patients; and

WHEREAS a high quality educational program for interns and residents is of great value in the training of nurses; and

WHEREAS the adequate training of interns, residents and nurses is a fundamental essential to improving the medical and hospital care of the patient; and

WHEREAS the Council on Medical Education and Hospitals of the American Medical Association has warned some hospitals that unless there is an increase in the number of patients available for teaching purposes, approval for intern and resident training will be withdrawn; and

WHEREAS in many hospitals the members of the medical staff have made their private patients available heretofore for the training of interns and residents with satisfaction to all concerned; therefore, be it

RESOLVED that the JOINT COMMITTEE FOR THE IMPROVEMENT OF THE CARE OF THE PATIENT requests The Medical Society of New Jersey to approve the principle of making available all patients for the intern and resident educational programs in hospitals and that it urge the members of hospital staffs to do so, especially where the standards of the Council on Medical Education and Hospitals of the American Medical Association cannot otherwise be maintained, and be it

FURTHER RESOLVED that the JOINT COMMITTEE FOR THE IMPROVEMENT OF THE CARE OF THE PATIENT requests the New Jersey Hospital Association to call this matter to the attention of its member hospitals and, where necessary, to urge the administrators to work in close cooperation with the medical staff and house staff training committees to the end that high quality standards for such training be maintained.

The Joint Committee is composed of official representatives of The Medical Society of New Jersey, the New Jersey State Nurses' Association and the New Jersey Hospital Association.

RESOLUTION ON HOSPITAL CAMPAIGN FUNDS

WHEREAS, certain hospitals, conducting solicitation campaigns for funds to expand or build new hospital facilities, have demanded from their staff physicians designated amounts, in contributions, graduated according to the staff positions held, and

WHEREAS, undue pressure and coercive methods are used to obtain contributions,

THEREFORE, BE IT RESOLVED, by the Board of Trustees of The Medical Society of New Jersey, that this practice be condemned, and that all hospitals in New Jersey, as well as the New Jersey Hospital Association, and all our component county medical societies, be forwarded a copy of this resolution.

LECTURE ON ADAPTATION SYNDROME

All physicians are invited to attend a lecture on the General Adaptation Syndrome to be held Wednesday evening, March 14, at 8:15 p. m., at the Jefferson Medical College, 1001 Walnut Street, Philadelphia. The essayist will be Dr. Hans Selye, Director of the Institute of Experimental Medicine, Montreal University. The lecture is under the auspices of the Phi Delta Epsalom Fraternity.

AMERICAN GOITER ASSOCIATION

Announcement has been made of a three day meeting devoted to papers on the thyroid gland to be held in Columbus, Ohio, beginning May 24, 1951. For further information write to Dr. George C. Shivers, Colorado Springs, Colorado. This session is under the auspices of the American Goiter Association.

Medical-Surgical Plan of New Jersey

"New Jersey's Blue Shield Plan"

Medical-Surgical Plan of New Jersey was organized by The Medical Society of New Jersey in 1942, as the medical profession's principal contribution to the problem of providing pre-paid medical service for people in the lower income brackets. After eight and one-half years of operation, its program has been accepted by more than 500,000 citizens of New Jersey, and it ranks eighth in size among the 72 Blue Shield Plans throughout the United States.

Medical-Surgical Plan has always maintained the closest possible advisory relationship with The Medical Society of New Jersey. Every major change of policy or contract has been reviewed by the Board of Trustees or the House of Delegates, or both, before becoming effective. Moreover, under the terms of its enabling act, all elections to the Plan's Board of Trustees are first endorsed by the Medical Society.

The Plan is proud of the fact that 4700—or nearly 90 per cent of the state's actively practicing physicians are Participating Physicians in the Plan. Without their participation, there would be no Medical-Surgical Plan. With their continued participation, Medical-Surgical Plan believes that ultimately it can meet, fully and satisfactorily, the major needs of the people of New Jersey for security against the economic shock of catastrophic illness.

There are many Participating Physicians who, unfortunately, have only a sketchy knowledge of the Plan's purposes, policies and problems. Hence, while they are Participating Physicians in name, these physicians sometimes cannot play their complete role as *co-operating* physicians.

Medical-Surgical Plan recognizes a primary responsibility to help physicians to understand the Plan, and to accommodate its program, insofar as possible, both to the needs of its half million subscribing members and to the best interests of its 4700 Participating Physicians.

PROFESSIONAL RELATIONS PROGRAM

To bring about a better understanding of the Plan among our Participating Physicians, and to enable each physician to *participate* more actively in guiding Plan policies, Medical-Surgical Plan is inaugurating a complehensive program of "Professional Relations". Our purpose is to open up and activate every conceivable medium of two-way communication between the Plan and the profession, individually and collectively.

Through this program we believe we shall improve the efficiency of Plan services to subscribers and to physicians; we shall ferret out constructive criticism and suggestions for improvement of the Plan from our Participating Physicians; and we shall create among individual physicians a conscious sense of copartnership with the Plan.

Some of the media to be employed are: Plan's page in this JOURNAL (for the privilege of which we are grateful to the Editor and Publication Committee); an exhibit at the annual meeting of the State Society; brief items for publication in the State Society *Membership Newsletter;* announcements and discussion of Plan activities for publication in County Society *Bulletins;* items for the *Newsletter* of the State Society Woman's Auxiliary; more frequent and broader utilization of the individual County Society Medical-Surgical Plan Advisory Committees; our own *Monthly Letter* from the Medical Director to Participating Physicians; meeting with groups of physicians and physicians' secretaries and office nurses to explain Plan procedures and to solicit their cooperation with these procedures; conferences with the Executive Secretaries of the County Societies, and with the Executive Committees of County Societies, where desirable, on Plan policies; and last, but perhaps most important of all, a continuing series of Plan conferences with representatives of the various specialty groups.

NEW "SERVICE REPORT" FORM

As a direct aid to better Physician Relationships, Medical-Surgical Plan will inaugurate on April 1, 1951, a new claim reporting form and a new procedure for its use. The new "Service Report" will be completed jointly by the Subscriber and the physician, and will be forwarded to the Plan by the physician on conclusion of his service.

Within the next few days a supply of the

new "Service Report" forms will be mailed to all Participating Physicians, employed groups, non-groups and non-resident subscribers and to all approved hospitals (as a convenience to physicians and subscribers). They are to be used on and after April 1, 1951.

The new system will simplify and expedite handling of claims by the Plan, provided physicians will cooperate in reporting services promptly and completely *via* the new "Service Report".

NEW SCHEDULE OF BENEFITS AND NOMENCLATURE

By July, Medical-Surgical Plan proposes to have completed a new Schedule of Benefits adapted to the nomenclature approved by A.M.A. and recommended by the Blue Shield Commission for adoption by Blue Shield Plans throughout the country.

The new Schedule will be incorporated in a *Manual for Participating Physicians* that will contain all the information regarding Plan contracts and policies needed by Participating Physicians in rendering services for Plan Subscribers.

In preparing the new Schedule, the Medical Director has been conducting a series of conferences with representatives of the various professional groups. These conferences are helping the Plan Trustees to adjust present differences in the Schedule of Benefits and to gain the suggestions and opinions of the profession at large as to various proposals for extending the scope of Plan services.

During the past year, Medical-Surgical Plan has increased its enrollment more than 30 per cent. It is now paying annually in medical benefits to the profession more than all the Workmen's Compensation insurance carriers combined pay the medical profession for services rendered.

Medical-Surgical Plan is the creature of the medical profession, a modern instrument designed to enable you more effectively to serve your patient. It has obligations both to its Participating Physicians and to its Subscribing Members, and it is striving—at all times—to meet both obligations, promptly and completely.

James E. Bryan, Administrator

OBITUARIES

DR. CHARLES D. ALTMAN

Dr. Charles D. Altman, medical director of Newark City Hospital, died on January 24, 1951, after an illness of 6 months.

Dr. Altman was born in New York in 1888, and was graduated from the Long Island College of Medicine in 1914. He interned at Bellevue Hospital, New York and Newark City Hospital. He joined the City Hospital staff as admitting physician in 1916, and was appointed medical director on January 1, 1950.

DR. CHRISTOPHER A. BROKAW

Dr. Christopher A. Brokaw, county physician since 1924, and an attending surgeon at Elizabeth General Hospital for 29 years, died on January 1, 1951, at his home in Elizabeth.

Dr. Brokaw was born in Elizabeth in 1895 and was graduated from the University of Pennsylvania Medical School in 1918. He was vice-president of the medical staff of General Hospital, vice-president of the Society of Surgeons of New Jersey, a fellow of the American College of Surgeons and a former president of the Clinical Society of General Hospital.

DR. BOYD M. LAWTHER

Dr. Boyd M. Lawther, medical director of the County Hospital and Almshouse at Northfield since 1947, died on December 19, 1950, at the age of 57.

After being graduated from the University of Pittsburgh, Dr. Lawther practiced medicine in Elwood, Pa., for 14 years. He came to New Jersey in 1936, and practiced in Atlantic City and Margate. He served in the Medical Corps in World War I and was county coroner from 1944 to 1947.

DR. HORACE R. LIVENGOOD

Dr. Horace R. Livengood died on December 30, 1950, after a long illness at the age of 74.

A resident of Elizabeth since boyhood, Dr. Livengood received his medical degree from Columbia College of Physicians and Surgeons in 1899. He was a member of Elizabeth's Board of Health for 24 years and had served as Union County coroner and official physician for the Union County Jail. He was attending physician at Elizabeth General Hospital and consulting physician at Alexian Brothers Hospital. He was a past president of the Union County Medical Society and a charter member of the Academy of Medicine of Northern New Jersey.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

The Bureau on Bacteriology and the Section on Serology of the State Department of Health are now giving additional services on bacteriologic and serologic specimens submitted to the state laboratory. A quantitative Mazzini test is performed on all specimens showing a 4-plus reaction in the qualitative undiluted serum test. The results of the quantitative test are reported showing the titre of the reactions in dilutions as far as a reaction is obtained. Specimens giving a doubtful Mazzini result are tested by the V.D.R.L. slide test using cardiolipin-lecithin antigen. The Kolmer complement fixation test is also performed on such specimens or when requested by the physician.

Routine Rh factor determination has also been established on all prenatal specimens submitted for syphilis serology. Between twenty thousand and thirty thousand additional Rh tests are being performed yearly. Rh negative bloods (approximately 15 per cent of the total tested) are rechecked with the tube agglutination test.

Absorption tests are now run on routine heterophile antibody reactors. This is a confirmatory test for the presence of infectious mononucleosis.

Cultures identified as S. typhosa are sent to the regional center established by the U. S. P. H. S. for bacteriophage typing. This provides information that may aid in establishing the source of infection of typhoid fever. The Bureau on Bacteriology in the past has identified the Salmonella organisms into the respective groups and then sent the culture to the Salmonella Typing Center for further identification. Now that complete Salmonella and Shigella typing kits are available, the Bureau plans to undertake this work in the state laboratory.

The Bureau recently completed a satisfactory evaluation study on ova and enteric parasites supplied as "unknowns" to the various state laboratories. It is now participating in a like evaluation on tuberculosis specimens.

The Bureau on Bacteriology and Section on Serology no longer keep files of the results of serologic examinations for syphilis, prenatal and Rh factor determination, heterophile antibody agglutination and spinal fluid tests for syphilis reactors. The original information slip supplied to the physician will be returned to him in a window envelope with the laboratory results of the examination stamped on the same slip. *No copies of the results will be available.* It is requested that physicians type (or print plainly) the necessary information and that the physician's name and address be especially legible in order that the postman will have no difficulty in returning it to you.

Because the information blank is the established 3 x 5 size form, the physician wishing to make any remarks or asking that additional tests be performed, should do so on a separate sheet of paper. If any part of the report is not received by the doctor, the laboratory will need the laboratory report number and the name and address of the patient so that the laboratory number file may be checked for the specimen.

For the state economy and to expedite laboratory reports, doctors, nurses, and health officials are urged to:

1. Fill out the information blank legibly and completely.
2. See that the blood vial is securely stoppered.
3. Be sure to replace the absorbent packing supplied in the mailing tube.
4. Screw on the metal cap securely.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, February 9, 1951, DR. G. RUFFIN STAMPS, presiding.

DR. JOSEPH B. VANDER VEER, assistant professor of Cardiology, Graduate School of the University of Pennsylvania, was the guest speaker. His subject "Practical Consideration of Anticoagulant Therapy in Heart Disease, Venous Thrombosis and Pulmonary Embolism", was ably presented.

Dr. Molitch read to the Society a set of resolutions honoring those members who have devoted over fifty years to the active practice of medicine. It was moved and seconded that the resolutions be adopted, and that the committee be authorized to arrange for the printing and presentation of the certificates to these honored members.

Dr. Timberlake, reporting for the Welfare Committee, announced that the State Board of Child Welfare was willing to pay the sum of $4.00 for visits where the distance was in excess of five miles. This is in accord with the fees paid in similar Old Age Assistance cases. Approval of the Society was recommended.

Dr. Holland spoke briefly of the meeting on Public Relations held in Trenton on January 18.

The following were elected: Regular membership —DR. CHARLES I. WARE and DR. MILTON ACKERMAN (transfer from Butler County, Pa., Medical Society).

Dr. Stamps announced that due to illness, Dr. Guion will unfortunately be unable to carry on his duties as editor of The Bulletin, and Dr. Robert Grier, associate editor, will assume the position of acting editor.

Dr. Gleason brought to the attention of the Society the matter of a group hospitalization plan, and asked for discussion. Various opinions were voiced, and it was generally agreed that aside from the obvious benefits of the plan, the idea had additional merit in that it would be a means of showing the public that we ourselves believe in what we are trying to urge on them. Dr. Gleason was appointed a committee of one to consolidate the facts and to present the matter for action of the members at a future meeting.

BURLINGTON COUNTY

Freeman W. Metzer, M.D., Reporter

The regular monthly meeting of the *Burlington County Medical Society* was held at Riverton Country Club on February 8, 1951, at 9:00 p. m. Illness and other urgent matters were responsible for the absence of our president, president-elect, and vice-president. The meeting was opened by Dr. E. V. Davis, chairman of Executive Committee.

The meeting was turned over to Dr. H. M. Hebble who introduced DR. JOHN A. ROSE, head of the Child Guidance Clinic of Children's Hospital, Philadelphia. He gave a very interesting talk on "Behavior Problems of the Child".

Dr. S. Emlen Stokes, chairman of the Welfare Committee, reported that complaints had been received from the physicians relative to the inadequate fee schedule in some instances of the Child Welfare cases. It was recommended that the Welfare Committee take up the matter with the Child Welfare Board to see if some satisfactory agreement can be reached.

Dr. Dean LeFavor brought us up-to-date on the recent happenings in Procurement and Assignment.

The final reading of the proposed amendment to the Constitution of the Society relative to Judicial Committee was conducted at this meeting. Its acceptance was unanimous.

AUSTIN J. HORAN, M.D., whose practice is limited to ophthalmology in Mt. Holly, was admitted as our newest member.

CUMBERLAND COUNTY

Norman W. Henry, M.D., Reporter

The *Cumberland County Medical Society* was the guest of the Kimco Club, Kimble Glass Company, Vineland, on February 13, 1951. There was a plant tour preceding the regular meeting.

DR. CARL WARE, President, presided over the business section of the meeting. The proposed addition to the constitution of our society concerning a nominating committee for the annual election of officers was voted upon and defeated.

Our chairman of the program committee, Dr. E. C. Greene, introduced DR. WILLIAM W. WILSON, assistant chief in Neuropsychiatry at Philadelphia General Hospital, assistant in Neuropsychiatry in Bryn Mawr Hospital, and medical director at Fairmount Farm, Inc., Philadelphia, Pa., who presented the subject, "Electroshock and Insulin Therapy and Transorbital Lobotomies in the Care and Treatment of Mental Patients". This subject was well received and very interesting. It brought to us the recent trends of shock therapy in the treatment of neuropsychiatric disease.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

A. GUY CAMPO, M.D., presided at the regular monthly meeting of the *Gloucester County Medical Society* which was held at the Woodbury Country Club, January 18, 1951.

Chester I. Ulmer, M.D., introduced the speaker of the evening, JOSEPH T. BEARDWOOD, M.D., of the Graduate School of Medicine, University of Pennsylvania, Past-President of the American Diabetic Association. In discussing his topic "Diabetes Today", Dr. Beardwood brought everyone up to date on the subject of diabetes, its cause and general management. Many questions were answered at the conclusion of a very practical presentation.

Dr. Underwood in reporting for the Cancer Committee stated that as soon as the Cancer Society had another meeting, funds would become available for Gloucester County. A letter was read from

State Society Headquarters stating that they would screen all the applications for M.D. license tags, so that only legitimate doctors of medicine would be issued such tags.

A letter from the Philadelphia County Medical Society was read concerning the proposed transfer of DR. ROBERT E. BOOTH, a member in good standing, to the Gloucester County Medical Society.

Dr. Ulmer, reporting for the Program Committee, stated that by the payment of a small fee, we would be able to hold all our future meetings at the Woodbury Country Club.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

Hudson County Medical Society held its regular monthly meeting at Murdoch Hall, Jersey City Medical Center, on February 6, 1951, with DR. MEYERSON presiding.

Dr. Ginsberg, reporting for the Committee on Postgraduate Medical Education, urged that all who are interested in postgraduate training in General Pathology and/or Hematology return the card enclosed with their February Bulletin—not later than February 15. He also emphasized the existing regulation under which, only those doctors who enroll in either one or both of these courses will be eligible for further postgraduate study, under our program, in the fall of 1951.

Dr. Butler, chairman of the Public Relations Committee, read the letter of resignation sent to Dr. Meyerson by Mr. Nevin, upon his appointment as Executive Officer of The Medical Society of New Jersey. Upon motion made, seconded, and carried, Mr. Nevin's resignation was accepted, with the Society's recording of its appreciation of the excellent service rendered by Mr. Nevin in his capacity as Public Relations and Speech Counsel.

As chairman of the Physicians' Committee, Jersey City Community Fund Campaign, Dr. Butler thanked the members of the committee and all those who contributed, stating that the amount realized this year was considerably greater than in previous years.

Dr. Gleeson, chairman of the 1951 Annual Dinner Committee, announced that the Dinner will be held on April 7, at the Jersey City Masonic Club.

Attention was directed to the open Health Meeting of the Woman's Auxiliary on March 7, when the program will consist of a panel discussion on the applications of atomic energy, entitled *The Atom and You.* The meeting will be held at Murdoch Hall and will start at 1 p. m.

The guest speaker of the evening was DR. PHILIP THOREK of Chicago, who chose as his subject, *Vagotomy and the Ulcer Problem.* Dr. Thorek used lantern slides, as well as a motion picture film, to illustrate his lecture.

HUNTERDON COUNTY

H. A. Davidson, M.D., Reporter

On January 23, 1951, the *Hunterdon County Component Society* held its regular quarterly meeting in Flemington. The president, DR. LLOYD HAMILTON was in the chair. DR. RAY E. TRUSSELL, executive director of the new Hunterdon County Medical Center and DR. MAX COOPER of Milford were unanimously elected to membership. Application blanks for the special M.D. license tags were distributed.

A special feature of the evening was an accolade to DR. GEORGE HENRY of Flemington on the occasion of the silver anniversary of his entry into medical practice. He was presented with a scroll and key as tokens of the affection and esteem of the Hunterdon county profession.

Dr. Trussell reported that Commonwealth Fund has made a grant of $60,000 for a survey of chronic illness in Hunterdon County. Dr. Trussell also reported on bill A-1, now before our state assembly which would permit establishment of county health departments if approved by public referendum.

Essayist of the evening was DR. DAVID ECKSTEIN of Trenton who spoke on liver function tests. The Chair then named Doctors Baker, Jenkins and B. S. Fuhrmann as a nominating committee.

MIDDLESEX COUNTY

F. L. Paret, M.D., Reporter

The gavel of the newly elected president, DR. MARSHALL SMITH, opened the regular monthly meeting of the *Middlesex County Medical Society* in the auditorium of the Roosevelt Hospital, Metuchen, on January 17, 1951, at 9 o'clock.

Drs. ROBERT C. STEINMAN of Stelton, and WILLIAM H. AINSLEE, of Metuchen, were elected to a two-year period of Associate membership on recommendation of Dr. Calvert R. Toy, chairman of the Medical Ethics Committee.

The Middlesex County Dental Society, through a letter from its president, Mr. Lewis M. Katz, extended the professional resources of its members to the Civil Defense Council and pledged cooperation with the Medical Division.

The Woman's Auxiliary expressed its written thanks to the Society for the occasion of their presence at the annual meeting.

The guest speaker of the evening, DR. DANIEL C. BAKER, assistant professor of Otolaryngology, College of Physicians and Surgeons, Columbia University, talking on the subject "Coughs In Children" stated that 50 per cent of chronic coughs in this geological location are due to repeated upper respiratory infections.

He emphasized the need of promoting proper nasal ventilation and drainage by medicaments or surgical procedures where indicated, and the more frequent use of specialized tests such as bronchoscopy and lipiodol studies of the tracheobronchial tract to eliminate foreign bodies, lung affections, new growths and anomalies.

In the discussion, Dr. Philip J. Kunderman, enlarged upon the surgical treatment of cough producing lung pathology.

The use of radiation to the naso-pharynx to reduce enlarged lymphoid tissue was debated.

MORRIS COUNTY

Theodore R. Failmezger, M.D., Reporter

The mid-year dinner meeting of the *Morris County Medical Society* was held at the Spring Brook Country Club in Morristown on January 18, 1951. The meeting was opened with cocktails at 6:30, followed by a delicious steak dinner.

With appetites satisfied, we listened to Col. Sheldon S. Brownton, Surgeon of the First Air Force, who talked and showed films on the "Medical Aspects of Atomic Warfare". This interesting and timely topic was then opened to a very enthusiastic discussion period before adjournment.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on January 16, 1951, at 9 p. m., at the Woman's Club, Paterson. John E. Leach, M.D., President of the Society, presided at the meeting.

A short busIness session was held prior to the scientific meeting, at which the following were elected to Active membership: Drs. Sydney S. Narrett, Passaic, Charles Honig, Butler, Abraham Goldfarb, Paterson. Two physicians were elected to Associate membership: Drs. Samuel Baum, Passaic, and Wilbur F. Taylor, Bloomfield.

Dr. George L. McCarthy, member of the Program Committee, introduced the speaker of the scientific session, Donald A. Covalt, M.D., clinical director of the Institute of Physical Medicine and Rehabilitation of New York University-Bellevue Medical Center. Dr. Covalt's subject for discussion was the "Aftercare and Treatment of Patients with Hemiplegia and the Amputee", illustrated with lantern slides.

SALEM COUNTY

John S. Madara, M.D., Reporter

On December 15, 1950, the regular monthly meeting of the *Salem County Medical Society* was held at the DuPont-Pennsgrove Club. Dr. August Jonas, the President, called the meeting to order at 4:30 p. m.

The speaker of the day was Dr. Fred B. Wagner, Jr., assistant professor of Surgery, Jefferson Medical College. He gave an interesting talk on the *Practical Management of Varicose Veins,* which was followed by an interesting film covering the same subject.

The report of the Welfare Committee meeting in Trenton on December 3, 1950, was given by Dr. John S. Madara. Dr. Harry F. Suter gave the report of the Public Relations Committee. A letter from the Red Cross was read requesting the physicians' cooperation when the Mobile Unit is sent around to collect blood. This was approved by the Board.

The treasurer announced that 13 per cent of Society members had failed to pay their annual $25 dues to the American Medical Association.

On January 19, 1951, the regular monthly meeting of the *Salem County Medical Society* was held at the DuPont-Pennsgrove Club and was called to order at 4:45 p. m. by Dr. August Jonas, the president.

Dr. Harry W. Fullerton introduced Dr. Edward B. Campbell, professor of Urology at the Hahnemann Medical College. Dr. Campbell gave a timely talk on *Surgery in the Elderly Patient* followed by an interesting discussion.

The report of the dinner meeting of the Sub-Committee on Public Relations of The Medical Society of New Jersey held in Trenton on January 18, was given by Dr. Harry F. Suter.

DWIGHT ANDERSON RETIRES

Dwight Anderson, director of public relations for the Medical Society of the State of New York for the past 16 years and the society's executive secretary since 1945, has retired from his duties with the society.

Mr. Anderson, a pioneer in medical public relations, has done considerable writing on alcoholism in the last eight years, and plans to devote his time in the future largely to the public relations aspects of this subject. His most recent book, *The Other Side of the Bottle,* treats of alcoholism and was published last September by A. A. Wyn, Inc., New York City.

From 1925 to 1935, Mr. Anderson was publicity consultant to the National Tuberculosis Association, specializing in Christmas Seal publicity, consultant with Maternity Center Association from 1930 to 1935, and director of public relations for the American Association of Orthodontists from 1939 to 1942. He has been employed on specific assignments by many other scientific, professional and welfare organizations, such as the American College of Surgeons and the American College of Physicians.

In 1935, he organized and administered the first public relations bureau connected with a medical society, for the Medical Society of the State of New York, and became business manager of the New York State Journal of Medicine and the Medical Directory of New York State, in 1939.

Mr. Anderson, in addition to his latest book, is the author of *Making Things Happen in the Christmas Seal Sale, What It Means to Be a Doctor,* and co-author of *When Doctors Are Rationed.*

He will reside with his wife, the former Marie Lee Warner in their home, "Hawser House", at Center Moriches, Long Island.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

Mrs. R. John Cottone

Know Your Constitution—This slogan was adopted, with remarkable results by one of our Component County Medical Societies, and taken up by its Auxiliary with equally good results.

It is a splendid slogan and will work for the betterment of each county unit as well as each individual member thereof.

By knowing our Constitution and By-Laws we can work in better unity and strength, know our limitations and objectives and thus proceed with surety and confidence.

I urge each county president to emphasize this necessity at her regular meetings. Adopt this slogan and you will find it fun to pick up our little brown book and read it often. It is not long—with several readings you will find it quite possible to retain the essential rules readily. Any questions raised during your meetings will then be easily and simply solved.

A thorough knowledge of our Constitution and By-Laws by our officers and delegates will serve to successfully expedite the procedure of our coming Annual Meeting in May and make this meeting the successful outcome of our year's work, as well as a good start towards the year ahead of us.

Make this your slogan now—*Know Your Constitution and By-Laws.*

NATIONAL AUXILIARY MEETING

Haddon Hall will be the headquarters for the Annual Meeting of the Woman's Auxiliary to the American Medical Association, which will be held in Atlantic City, June 11 through June 14.

Requests for reservations should be sent immediately to Dr. Robert A. Bradley, Chairman A.M.A. Housing Bureau, 16 Central Pier, Atlantic City, N. J.

AUXILIARY REPORTS

Bergen County

Mrs. Winton Johnson,
Chairman of Press and Publicity

A regular meeting of the *Woman's Auxiliary to the Bergen County Medical Society* was held at Bergen Pines Hospital at 9 p. m., on February 13, 1951. The President, Mrs. Edward Sexton, conducted a brief business meeting before the speaker's program. The Nominating Committee presented the names of candidates for office for the coming year, to be voted upon at the March meeting. Invitations from three other groups requesting the Auxiliary to send representatives to their special events were read: (1) the Hudson County Medical Auxiliary for their Open Health Meeting on March 7; (2) the Union County Medical Auxiliary for their Panel Discussion on February 14; (3) the New Jersey State Safety Council for its Home Safety Forum on March 1. Booklets entitled "The Atomic Bomb and You" were distributed to the group.

Mrs. Rudolph Schretzmann, chairman of the Annual Bridge and Fashion Show, announced that this event would be held on March 27, at the Hackensack Woman's Club. Her committee is busy with the preparations, and already sales of chance books for an Emerson television set which will be raffled at the party have been good. This bridge party is held to raise funds for our philanthropic fund, a reserve designed to help members of the families of deceased physicians, and to help to sponsor nursing students.

The speaker of the evening was Mrs. Pauline Rappaport, the President of the Mental Health Society of Bergen County. Her analysis of the problems of caring for mentally ill persons and of helping all people to maintain sound mental health was very well presented.

Camden County

Mrs. Walter A. Crist,
Chairman, Press and Publicity

A reception to welcome new members and to honor past presidents was a feature of the Febru-

ary 6, 1951, meeting of the *Woman's Auxiliary to the Camden County Medical Society.*

Mrs. H. F. Westcott, President-Elect, introduced the speakers. Dr. James H. Walker, Department of Surgery, University of Pennsylvania, and Mr. San Angell, member of the State Committee for Civil Defense, discussed "Problems to be Considered in Preparing for a Possible Atomic Bomb Attack and Civil Defense".

Mrs. Thomas McGlade, President, presided at the business meeting. Election of officers, for the coming year, and selection of delegates to the annual State Convention took place.

A group of members of the Auxiliary, headed by Mrs. Thomas McGlade, President, has just completed a Standard First Aid Course and is now taking the Instructor's Training Course in First Aid. The Auxiliary has undertaken this project as its contribution to the Civil Defense effort of the Camden County Medical Society. Mr. Dick Harris Camden County Chapter, American Red Cross, is the instructor. The Auxiliary hopes to form a new class upon the completion of this one.

Essex County

Mrs. Stuart Zeh Hawkes,
Chairman, Press and Publicity

The Robert Treat Hotel, Newark, was the scene for the last meeting of the *Essex County Auxiliary.* There, nearly 100 members attended the highly successful Arts and Hobbies Day. Mrs. Harry DiGiacomo and Mrs. Samuel Pecora presented a delightful program. Following the busy Christmas Holidays, all of the participants in the day are to be congratulated for giving up so much time in practicing and preparing for the program.

A one act, two scene play, *The Tenth Word,* starring Mrs. Don A. Epler and Mrs. Michael Hyland was presented in a lovely garden setting. The costumes of one hundred years ago were charming. Mrs. Harry McCluskey and Mrs. Arthur Ruccia excelled in the ingenue roles. Those in the supporting roles were Mrs. Frank Dellucci, Mrs. A. B. Iannone, Mrs. Fred Meinhard, Mrs. William Miningham, Jr., and Mrs. George Parrell.

Following the play the dance group, under the direction of Mrs. Philip D'Ambola, performed. While Mrs. William Miningham, Jr., sang an Irish tune, Mrs. Robert Anderson, Mrs. Pascal Balocchi, Mrs. Thomas Cantalupo, Mrs. Louis Corvino, Mrs. Samuel Pecora, Mrs. Thomas Santoro and Mrs. John J. Torppey danced. Mrs. D'Ambola did a solo tap dance.

Following the dancing the hobbies were viewed. Many members exhibited a large variety of interest, among which were afghans, dolls, oil paintings, ceramics made under the tutelage of a member, and an adorable gingerbread house.

Tea was poured by our president, Mrs. Jesse T. Glazier and our junior past-president, Mrs. Philip Santora.

Middlesex County

Mrs. L. Krafchik

The regular meeting of the *Woman's Auxiliary to the Middlesex County Medical Society* was held on Wednesday evening, January 17, 1951, at the Nurses' Auditorium of the Perth Amboy General Hospital. Mr. Lee Donehue of the Dale Carnegie Institute spoke on *Public Relations.* The meeting was well attended, and refreshments were served by Mrs. M. Kant, Mrs. F. Mann, and their committee.

Union County

Mrs. Austin Tidaback, Publicity Chairman

On February 14, 1951, the *Woman's Auxiliary to the Union County Medical Society* presented a panel discussion on "The Problem of the Long Term Patient". Mrs. Graham C. Newbury, Program Chairman was Moderator, and the panel consisted of Henry H. Kessler, M.D., Director of the Kessler Institute for Rehabilitation, Mr. J. Harold Johnston, Executive Director of the New Jersey Hospital Association, Mr. Theodore Rathjen, Director, Public Welfare of Elizabeth, and Mrs. Asher Yaguda, Chairman, Homemaker Service of the Essex County Service for the Chronically Ill.

A supper dance, the annual social event of the Auxiliary's season, will be held at the Elizabeth Town and Country Club on March 31.

BOOK REVIEWS

Practical Gynecology. By Walter Reich, M.D., and Mitchell J. Nechtow, M.D. Pp. 449. Philadelphia, Lippincott, 1950. ($10.00)

This book is aimed chiefly at physicians in general practice. It does a beautiful job of simplifying the approach to diagnosis, office endocrinology and gynecologic symptoms. It is practical and it avoids unnecessary discussion of controversial subjects. It covers technics of office gynecology, laboratory tests, biopsy cytology, and the management of the more commonly seen gynecologic disorders.

A feature of interest is a list of commercial hormone preparations which should simplify to a large extent the question of which preparation and what dosage to use. The pictures are good and the diagrams self-explanatory. The color supplement of 15 plates at the end of the book contains several pictures which are too small and in which color rendition might be better.

Since a large part of general practice is made up of patients with gynecologic disabilities, this book serves as an excellent supplement to the library of any physician treating women.

S. J. Goodman, M.D.

Clinical Nutrition. Nutrition. Edited by Norman Jolliffe, M.D., F. F. Tisdall, M.D., and Paul R. Cannon, M.D. Pp. 925; with 78 tables and 127 illustrations. New York, Paul B. Hoeber, Inc. 1950. ($12.00)

This symposium on nutrition was prepared under the auspices of the Food and Nutrition Board of the National Research Council. The subject lends itself so well to treatment by various authors that the usual incoherence of a symposium is not present. The list of contributors is outstanding and each subject is a complete monograph so far as nutrition is concerned. With so many excellent contributions, it is perhaps unfair to single out individual authors. However, the chapter on calcium and phosphorus malnutrition by Snapper and the one on the essential trace elements by Moore, James Innes and Elizabeth M. Innes seemed outstanding.

As Jolliffe points out, the major pitfall in the study of nutrition is diagnosis. He presents elaborate charts to be followed in obtaining a thorough nutritional and medical history. Considering the usual unreliability of such material it would seem a doubtful investment in time on the part of the examiner. The blurb accompanying the book claims unusual diagnostic importance for the illustrations accompanying the text. While the colored photographs are excellent, the changes are of such a nonspecific nature that their diagnostic value remains doubtful. The appended table of food values has the added feature of listing the vitamin and mineral content of the various foods. However, a serious handicap is the listing of carbohydrate, protein and fat contents in grams per portion rather than by percentage. To one accustomed to calculating diets percentage-wise, this is an inconvenience.

LOUIS GRUNT, M.D.

Textbook of Endocrinology. Edited by Robert H. Williams, M.D. Pp. 793. Philadelphia, W. B. Saunders Company, 1950. ($10.00)

This compilation represents the efforts of eleven outstanding men, each an authority in his special field. It is not written for medical students but for mature clinicians and research workers who wish to keep abreast of recent advances in endocrine research.

Recent advances in diagnosis and treatment of endocrine and pseudo-endocrine problems are discussed. To mention a few of the topics covered: ACTH and cortisone, the use of thiurea drugs and radio-active iodine, the role of the adrenal steroids and the pituitary-adrenal relationships. Of particular interest is the discussion of sex steroids and their relation to cancer of the breast and of the prostate.

The popular conception of "endocrine obesity" is discussed and evidence presented that the only cause of obesity is the intake of food energy in excess of the energy expended. In many cases, excessive appetite is conditioned by genetic, social, economic and psychologic factors; excessive craving for food may arise following physical or psychologic trauma or infection in the region of the hypothalamus or edenohypophysis.

A splendid chapter entitled "Neuro-endocrine and psychodynamic aspects of endocrinopathies" is included. Friedgood presents evidence that psychodynamic factors are of significance in impotence, amenorrhea, functional sterility and dysmenorrhea. Emotional conflicts and tensions cause profound disturbance of the physiology of reproduction and sexual life of an individual. Emotion may also cause true endocrine disturbances such as exophthalmic goitre, diabetes mellitus, diabetes insipidus, adiposo-genital dystrophy and others.

The extensive bibliographies at the ends of chapters and an excellent index-guide to the entire book are of inestimable value to the clinician interested in current advances in medicine, especially in the field of endocrinology.

RITA S. FINKLER, M.D.

Peptic Ulcer. By Andrew C. Ivy, M.D., M. I. Grossman, M.D., and William H. Bachrach, M.D. (Pp. 1144.) Philadelphia, Blakiston Company, 1950. ($14.00)

This king-sized volume is divided into four parts: Part I is an introduction to the problem of peptic ulcer; part II deals with its pathogenesis; part III, with diagnosis; and part IV, with treatment. Each is preceded by a short discussion of its scope, and each part ends with a summary. Each chapter is preceded by an outline of its subject matter and has, in turn, its own summary or conclusion. The book may be read in two directions. Considering the exhaustive manner in which every aspect of the subject is treated, it may be imagined the authors wisely envisaged the inability of the busy student or practitioner to read the text from cover to cover. Instead, one may read a summary of a part or chapter. Finding a subject requiring clarification or amplification, the reader need only turn back to the outline to find where the material is to be found. To complete this amazing feat of compilation, the reader is further speeded along in his search by prominent paragraph headings. The book is filled with 137 excellent illustrations and figures and 210 tables. There is a list of references at the end of each chapter, including those that are, in themselves, summaries. And at the end of the book an alphabetical list of authors containing almost 6000 names, is found.

The scope of the book is prodigious. Whether the subject is the complicated physiology of the stomach's resistance to digestion or whether the discussion has turned to the effects of war, air raids, marital status, population rates or personality indices, it makes no difference. There is the same exhaustive treatment, the same concise summaries, the same provocative conclusions. If one's interests are purely surgical, here are all the procedures along with their mortality and morbidity percentages. Here, too, is the latest in medical management. No bones are made about the ease in treating the average case; there also is ample advice

about the difficult one. The gastro-enterologist, should feel proud that he has chosen a field with so many facets of interest, so many fields to explore, so many mysteries to intrigue.

Andrew J. V. Klein, M.D.

A Primer for Diabetic Patients. By Russell M. Wilder, M.D., University of Minnesota. Pp. 200. Philadelphia, W. B. Saunders Co., 1950. ($2.25)

In the ninth edition of a book which has already been used by thousands of diabetics, Dr. Wilder again produces a compact volume filled with much more information that its pages seem able to hold. There are excellent chapters devoted to the discussion of diabetes *per se*, the various tests, the use of insulin, complications and diet.

The descriptions of the tests and the use of insulin, including mixtures, are lucid and readily applicable. The chapter on complications is especially noteworthy for its detailed description of the care of the feet—the downfall of so many diabetics. The chapter on diet (and particularly food substitutes) will be welcomed by the diabetic who is always disturbed by the narrowness of the prescribed diet. Lastly there are many questions with page references at the end of each chapter which summarize the essential information in the text.

If there is any criticism of the volume, it lies in the portions which deal with the management of complications such as acidosis, and the regulation of insulin, particularly during emergencies. These are directed primarily toward the physician and seem out of place in a text written for the patient.

Notwithstanding this slight criticism, this book will be of endless use for the diabetic and will aid the physician in treating his patient.

Irving L. Sperling, M.D.

The Antihistamines; Their Clinical Application. By Samuel M. Feinberg, M.D.; Saul Malkiel, M.D.; and Alan R. Feinberg, M.D. Pp. 291. Chicago, The Yearbook Publishers, Inc., 1950. ($4.00)

Rarely have new drugs created as great confusion, for the physician and the general public, as has the introduction of the antihistamines. As each of the twenty-one antihistamines emerged upon the scene, an overenthusiastic article would appear in a newspaper or magazine, hailing the new drug. Medical journals were filled with articles describing the current antihistamine. Tables and charts proved to the author's satisfaction, if not to that of the reader, that the product he was extolling, had a maximum of therapeutic efficiency with a minimum of side effects.

Dr. Feinberg and his co-authors have done a first-rate job with this volume, designed to bring order out of chaos, to turn fantasy into fact. The book is divided into two parts. The first 86 pages are devoted to experimental studies. The chemistry, physiology and pharmacology of histamine and the antihistamines are clearly and tersely presented.

Part Two consists of 117 pages describing the clinical observations of the authors and others. The chapter on "miscellaneous manifestations" makes absorbing reading. In it, is presented in a mature manner, the evidence *pro* and *con* for the use of antihistamines in the common cold. The authors believe, as do most allergists, that cold victims, "responding to the antihistamines, have been found by subsequent course and observation to be suffering from allergy". Since the book was written, many articles have appeared in the medical journals reporting little or no benefit from antihistamines in colds and much harm from powerful side effects. This book is required reading for anyone who prescribes antihistamines—and who doesn't?

Frank L. Rosen, M.D.

Vocational Rehabilitation of Psychiatric Patients. Thomas A. Rennie, M.D., Temple Burling, M.D., and Luther E. Woodward, Ph.D. New York, The Commonwealth Fund, 1950. Pp. 133. Paper bound. ($.75)

The shock therapies have appreciably increased the number of psychiatric patients discharged every year by our state hospitals. The hospital terminates its responsibility after the patient has made a reasonably good clinical and social adjustment. But who is to take responsibility for helping the ex-patient make a good vocational adjustment? In most states—and this includes New Jersey—a state rehabilitation agency has the mission of helping psychiatric patients in vocational guidance and training and in job finding. Oddly enough, most doctors are completely unaware of this service. This book is a review of these facilities and of their effectiveness. It is a sober and down-to-earth account of what is being done and what can be done in the vocational rehabilitation of patients discharged from mental hospitals.

William S. Schram, M.D.

Pathologic Physiology; Mechanisms of Disease. Edited by William A. Sodeman, M.D. (Pp. 808.) W. B. Saunders Company, 1950, Philadelphia. ($11.50)

This is a collaborative effort by 25 authors approaching the problems of disease in the field of internal medicine from the standpoint of disturbed physiology. Unlike the usual text, (which is devoted to discussions of etiology, pathology, symptoms and treatment) this work analyzes symptoms and signs and the mechanisms of their development. It is not intended to take the place of standard texts on physiology or textbooks of medicine. It bridges the gap between them by presenting a clinical picture of disease seen as physiologic dysfunction.

An attempt is made to promote understanding of how and why symptoms appear so that the student or physician may have a reasonable explanation for the findings he elicits. Neurologic problems are considered only as they are related to the various disease groups. The same is true of metabolic disturbance and disorders of acid-base balance. The text is clear and easily read, the paper glossy and of excellent quality. Many graphs and drawings clarify the text. Students and physicians will find it a useful presentation.

Irving Shapiro, M.D.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV March, 1951 No. 3

THE physician may be led to suspect tuberculosis as a diagnosis by either the history or the physical examination of the patient. When this point is reached, the laboratory is prepared to give valuable assistance in helping him to determine a definite diagnosis of tuberculosis.

THE VALUE OF SPECIAL EXAMINATIONS IN THE DIAGNOSIS OF TUBERCULOSIS

Recent advances in the definitive treatment of tuberculosis and other diseases have increased the importance of proving the diagnosis before planning a program of treatment. For this reason, a review of the present status of the various special examinations which help in the diagnosis of tuberculosis with special emphasis on their values and their limitations is timely.

Roentgenology in the Diagnosis of Tuberculosis

The two fundamental questions to be considered from a roentgenologic standpoint are—does the roentgenogram show abnormal features? and—does the abnormality represent pathologic changes associated with or caused by a tuberculous infection? The public and the medical profession are well aware of the importance of the so-called mass chest survey. Its value rests on the accuracy of interpretation of the roentgenograms. Whether or not an abnormality represents changes due to a tuberculous infection cannot be unequivocally answered by study of the roentgenogram. The shadows produced by pathologic changes resulting from this infection are often sufficiently characteristic so that a reasonable diagnostic estimate of pulmonary tuberculosis can be made. However, tuberculosis may be simulated roentgenologically by acute and chronic inflammatory processes, neoplastic lesions and other conditions that decrease the radiability of pulmonary tissue.

It is not enough to make a diagnosis of suspected tuberculosis, although this is often a valuable working judgment. An exact etiologic diagnosis must be made, but this is not the responsibility of the roentgenologist. It is enough that the X-ray locates the areas of disease. Among older adults, the possibility that a pulmonary lesion may be malignant suggests that prolonged observation by roentgenologic examination is dangerous. It is impossible to differentiate new primary lesions from those of the reinfection type by roentgenologic examination alone. Not all calcareous deposits in the roentgenograms of the chests of those people who react to tuberculin are due to tuberculosis. Failure to demonstrate the tubercle bacillus in suspected cases does not, however, prove its absence and it is here that serial roentgenologic examinations may be most helpful.

The Tuberculin Test

The tuberculin test, administered intracutaneously by the method of Mantoux, has been available since 1908 to the medical profession as an aid in the diagnosis of tuberculosis particularly in children and in epidemiologic case-finding. The incidence of positive reactors to the tuberculin test among adults has fallen to a level where the test

assumes considerable diagnostic importance in older individuals.

Only two types of tuberculin have had widespread acceptance. Old tuberculin ("OT") is the fluid medium in which tubercle bacilli have been grown. This is sterilized by heat, filtered, and concentrated before dilution to the appropriate dosage. The second preparation, known as "purified protein derivative" or "PPD", is a highly potent purified tuberculoprotein prepared by chemical fractionation from the cultures of tubercle bacilli on nonprotein synthetic culture mediums. Since PPD is more stable and much more potent than old tuberculin, it is probably the tuberculin of choice.

A positive tuberculin reaction indicates that the individual displaying it has, at some time, harbored tubercle bacilli in his body. It does not mean necessarily that active clinical tuberculosis is present or has ever existed. In an adult, a positive reaction may be the residual of a spontaneously healed tuberculosis contracted during youth. The single strength PPD tuberculin test (0.0001 mg. is used at Mayo Clinic for adults) should detect about 95 per cent of the cases with significant tuberculosis.

Histopathologic Examination for Tuberculosis

The histopathologic examination for tuberculosis is presumptive only, and the diagnosis must be established finally by isolating and identifying the tubercle bacillus. The histopathologic pattern of tuberculosis may be due to any of several other agents and the tissue reaction to the tubercle bacillus may vary so much that histologic examination may not even suggest the presence of the organism. Tissue removed for biopsy should be so selected and handled that satisfactory bacteriologic studies may be made if the condition found is not neoplastic.

Bacteriologic Examination for Tuberculosis

The bacteriologist employs three procedures which may aid in the diagnosis of tuberculosis: (1) the smear stained for acid-fast bacilli, (2) culture, and (3) guinea pig inoculation. They are only aids; the clinician makes the diagnosis. It is presumed, however, that a positive result obtained on guinea pig inoculation for tuberculosis constitutes indirectly a diagnosis for the patient.

The finding of acid-fast bacilli in a smear is only suggestive of the diagnosis of tuberculosis. Similarly, a smear that does not show acid-fast bacilli is of little value in ruling out this disease. The cultural technic for isolating and identifying acid-fast bacilli is a satisfactory screening procedure when performed by highly skilled workers. All newly isolated strains of acid-fast bacilli should be tested for virulence in animals. The inoculation of guinea pigs is the most satisfactory single procedure for detecting tuberculosis in the variety of specimens submitted to the diagnostic laboratory.

The Clinician's Responsibility in the Diagnosis of Tuberculosis

The first responsibility of the clinician is to suspect tuberculosis frequently, even in apparently healthy people, and to arrange for the appropriate laboratory studies made to determine if the disease is present. In spite of invaluable aid from the various laboratories, the clinician is responsible for making the diagnosis. He should correlate the results of all special examinations with each other and with the history of the illness and the physical findings before he attempts a diagnosis. Usually thorough investigation yields convincing evidence for or against the diagnosis of active tuberculosis.

The clinician must attempt to separate the inactive from the active tuberculous lesions so that the latter can be treated without delay. Nontuberculous lesions, such as early pulmonary neoplasms, must be distinguished from tuberculous lesions promptly, so that surgical treatment can be instituted while the lesions are still resectable. These are not easy tasks, because examination of each patient will yield a different combination of findings on which to base the decision. As Pinner has said in this connection, "Judgment acquired by experience is more helpful than any written rules."

Symposium on the Value of Special Examinations in the Diagnosis of Tuberculosis, David T. Carr, M.D., M.S., Colin B. Holman, M.D., George G. Stilwell, M.D., John R. McDonald, M.D., M.S., Lyle A. Weed, M.D., M.S., Ph.D., Gerald M. Needham, Ph.D., Proceedings of the Staff Meetings of the Mayo Clinic, July 19, 1950.

Relationship of Stress to Autonomic Lability

Studies in psychosomatics have shown that functional disorders often are a result of the patient's inability to adjust to emotionally stressful situations (stressor factors).

Nervous tension and chronic anxiety, discharged through a labile Autonomic Nervous System, can cause somatic disturbance. [1,2] Such states may involve any one of the organ systems or several at one time. [1,3] The outline below is designed to relate gastrointestinal and cardiovascular symptomatology to the exaggerated response of the autonomic nervous system.

	Physiologic Effects of Autonomic Discharge	
	Sympathetic	Parasympathetic
Gastro-intestinal System	Hypomotility Intestinal Atony Hyposecretion Reduced salivation	Hypermotility Gastrointestinal spasm Hypersecretion
Cardio-vascular System	Rapid heart rate Peripheral vaso-constriction	Slow heart rate Vasodilatation
Functional Manifestations	Palpitation Tachycardia Elevated blood pressure Dry mouth and throat	Heartburn Nausea-vomiting Low blood pressure Colonic spasm

The data here tabulated is from references [3,4,5,6,7] given below.

When the clinical picture is suggestive of functional disorder, the diagnosis is supported by the presence of the following indications of autonomic lability:

Variable Blood Pressure
Body Temperature Variations
Changing pulse rate
Deviations in B. M. R.
Exaggerated Cold Pressure Reflex
Oculo-Cardiac Reflex Abnormalities
Glucose Tolerance Alterations

Therapy in these cases is directed toward: 1) relieving the somatic disturbance to prepare the patient for psychotherapy*; 2) guidance in making adjustment to stressful situations and correction of unhealthy attitudes.

*Drug treatment using adrenergic and cholinergic blocking agents in conjunction with sedatives. [8,9,10]

1. Ebaugh, F.: Postgrad. Med. *4:* 208, 1948. 2. Wilbur, D.: J.A.M.A. *141:* 1199, 1949. 3. Williams, E. and Carmichael, C.: J. Nat'l. Med. Assoc. *42:* 32, 1950. 4. Goodman, L. and Gilman, A.: The Pharmacological Basis of Therapeutics, The Macmillan Co., 1941. 5. Katz, L. et al: Ann. Int. Med. *27:* 261, 1947. 6. Weiss, E. et al: Am. J. Psychiat. *107:* 264, 1950. 7. Alvarez, W.: Chicago Med. Soc. Bulletin, 581, 1950. 8. Rakoff, A.: A Course in Practical Therapeutics, Williams and Wilkins, 1948. 9. Karnosh, L. and Zucker, E.: A Handbook of Psychiatry, C. V. Mosby Co., 1945. 10. Harris, L.: Canad. M.A.J. *58:* 251, 1948.

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET

SITUATIONS, ETC.

$3.00 for 25 words or less: additional words 5c each

CASH MUST ACCOMPANY ORDER

Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

FOR RENT—Spacious consulting room with two treatment rooms. Share waiting room and receptionist with certified internist. Desirable location—lower Clinton Avenue, Newark, N. J. Write Box 12, c/o THE JOURNAL.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

SITUATION WANTED — Young lady, college trained, with five years' experience as secretary, receptionist and assistant to busy general practitioner and industrial physician, wishes position with Doctor in Trenton or vicinity. Excellent references. Call Newtown, Pa. 2189 after 7:30 p. m.

FOR SALE—Practice and residence of established ophthalmologist — reason poor health — corner house separate entrances—2 car garage. Telephone ORange 3-2893.

OFFICE AND PRACTICE FOR SALE — Well equipped, x-ray, B.M.R., Raytheon, laboratory, consultation room, etc., for immediate occupancy. Write or call Joseph L. Ecker, M.D., Clinton, N. J.

WANTED IMMEDIATELY — PEDIATRICIAN — Woman preferred—to take over office and flourishing practice in Northern New Jersey suburb, 26 miles from New York City. Write Box 3, c/o THE JOURNAL.

FOR SALE—Trial case and frame; Clason open model projector with 4 slides; Sklar suction-pressure cabinet. Reasonable. DElaware 3-8169.

— ATTENTION —

DOCTORS AND NURSES

Suitable for convalescing or nursing home. To settle estate, owner will sell at sacrifice large modern home, perfect condition, oil heat, beautifully landscaped, 2 car garage, near beach in Atlantic County. Can be financed.

For appointment to inspect write to:

P. O. Box 684
Atlantic City, N. J.

Primary Atypical Pneumonia

you know what it is... pure crystalline antibiotic of known chemical structure

Acute Undulant Fever

you know what it does...

produces rapid response in a wide range of infectious diseases

Pertussis

Lymphogranuloma Venereum

Chloromycetin®

Chloramphenicol, Parke-Davis

Supplied in Kapseals® of 250 mg., and in capsules of 50 mg.

Typhoid Fever

PARKE, DAVIS & COMPANY

MEDICAMENTA VERA

P D & CO.

Rickets cannot enter. . . .

. . . where the SUN never sets

The infant or child who receives Mead's Oleum Percomorphum daily is assured of his supply of vitamin D.

No matter what the clime or season, he lives "in a land where the sun never sets," protected from the shadow of rickets.

Supplying 60,000 vitamin A units and 8,500 vitamin D units per gram, Mead's Oleum Percomorphum provides this dependable prophylaxis in small doses at low cost.

Mead's Oleum Percomorphum comes in bottles of 10 and 50 cc., and of 50 and 250 capsules. Patients appreciate the economy of the large sizes.

Mead's Oleum Percomorphum is the *original* Oleum Percomorphum product—with a background of 17 years of quality and clinical acceptance. Available in all drugstores.

When you prescribe Oleum Percomorphum

Specify

MEAD'S

Oleum Percomorphum

MEAD JOHNSON & CO

EVANSVILLE 21, IND. U.S.A.

ANNUAL MEETING—MAY 14, 15 and 16, 1951—HADDON HALL, ATLANTIC CITY

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 4 APRIL, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 137 to 182

Roster of Officers and Committee Chairmen, Advertising page 3A

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

VOLUME 48
NUMBER 4

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*.....Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, ALDRICH C. CROWE.....Ocean City
President-Elect, SIGURD W. JOHNSEN.....Passaic
First Vice-President, HARROLD A. MURRAY.....Newark
Second Vice-President, HENRY B. DECKER.....Camden
Secretary, MARCUS H. GREIFINGER.....Newark
Treasurer, GEORGE J. YOUNG.....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953).....Atlantic City
ELTON W. LANCE, *Secretary* (1952).....Rahway
ALDRICH C. CROWE.....Ocean City
SIGURD W. JOHNSEN.....Passaic
HARROLD A. MURRAY.....Newark
HENRY B. DECKER.....Camden
MARCUS H. GREIFINGER.....Newark
GEORGE J. YOUNG.....Morristown
WILLIAM F. COSTELLO (1953).....Dover
WILLIAM C. WILENTZ (1953).....Perth Amboy
JOSEPH G. COLEMAN (1953).....Hamburg
L. SAMUEL SICA (1951).....Trenton
DAVID W. GREEN (1951).....Salem
REUBEN L. SHARP (1951).....Camden
J. LAWRENCE EVANS (1951).....Woodcliff
ROYAL A. SCHAAF (1952).....Newark
WILLIAM E. DODD (1952).....Beach Haven

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1951)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....BARCLAY S. FUHRMANN, Flemington (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON. Asbury Park (1951)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1951).....Hoboken
WILLIAM F. COSTELLO (1951).....Dover
J. WALLACE HURFF (1952).....Newark
DAVID B. ALLMAN (1952).....Atlantic City
ELMER P. WEIGEL (1952).....Plainfield
Vacancy (1952)

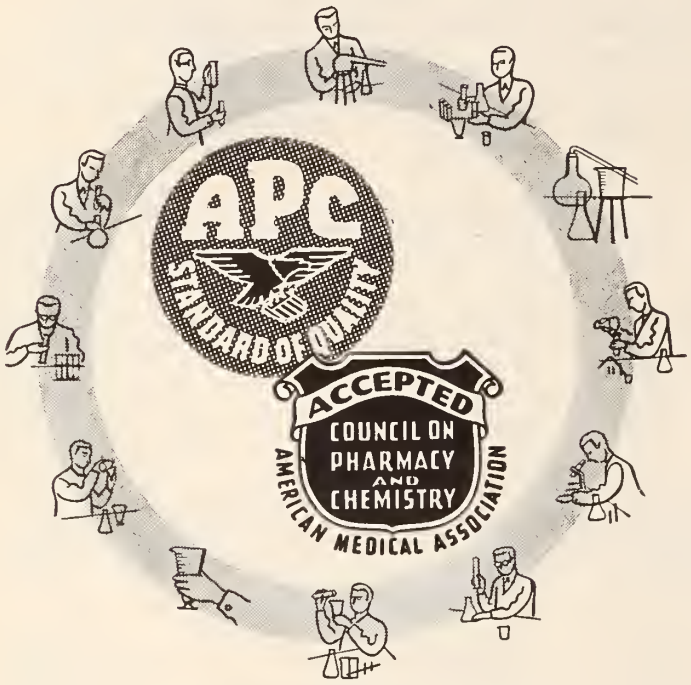
Alternates

ALBERT B. KUMP (1951).....Bridgeton
WALTER F. PHELAN (1951).....Elizabeth
JOHN H. ROWLAND (1952).....New Brunswick
FRANK W. KONZELMANN (1952).....Absecon
HERSCHEL PETTIT (1952).....Ocean City
L. SAMUEL SICA (1952).....Trenton

COMMITTEES AND CHAIRMEN

Committee	*Chairman*
Finance and Budget	DAVID B. ALLMAN, Atlantic City
Medical Defense and Insurance	J. WALLACE HURFF, Newark
Publication	J. LAWRENCE EVANS, JR., Leonia
Scientific Work	WILLIAM W. MAVER, Jersey City
Honorary Membership	SPENCER T. SNEDECOR, Hackensack
Woman's Auxiliary	LEWIS C. FRITTS, Somerville
Medical Education	HENRY B. DECKER, Camden
Annual Meeting	ASHER YAGUDA, Newark
Scientific Program	JOHANNES F. PESSEL, Trenton
Scientific Exhibit	WILLIAM W. HERSOHN, Margate City
Welfare	SAMUEL BLAUGRUND, Trenton
Legislation	C. BYRON BLAISDELL, Long Branch
JOSEPH F. LONDRIGAN, *Executive Secretary*, Hoboken	
Public Relations	WILLIAM E. BRAY, Pemberton
JOSEPH E. MOTT, *Executive Secretary*, Paterson	
Medical Practice	ALBERT B. KUMP, Bridgeton
Public Health	JOSEPH I. ECHIKSON, Newark
Adult Disease Control	CARLYLE MORRIS, Metuchen
Cancer Control	WILLIAM O. WUESTER, Elizabeth
Cardio-Vascular Diseases	JEROME G. KAUFMAN, Newark
Chest Diseases	ABRAHAM E. JAFFIN, Jersey City
Child Health	FREDERIC W. LATHROP, Plainfield
Conservation of Vision and Hearing	REINOLD W. TERKUILE, Ridgewood
Maternal Welfare	JOHN D. PREECE, Trenton
Mental Hygiene	HARRISON F. ENGLISH, Trenton
Rehabilitation	H. EUGENE READING, Paterson
Rural Health	RALPH M. L. BUCHANAN, Phillipsburg
Tropical Diseases	CHRISTIAN P. SEGARD, Leonia
Venereal Disease Control	ROBERT L. MCKIERNAN, New Brunswick
Anesthesiology	WILLIAM J. GLEESON, Jersey City
General Practice	D. WARD SCANLAN, Atlantic City
Hospital Relationships	FLORENTINE M. HOFFMAN, New Brunswick
Laboratory Medicine	ASHER YAGUDA, Newark
Nursing	H. WESLEY JACK, Camden
Pharmaceutical Problems	JOHN L. VARRIANO, Jersey City
Physical Medicine	ELMER J. ELIAS, Trenton
Radiology	JOHN L. OLPP, Tenafly
Welfare Services	HAROLD C. COX, Hightstown
Workmen's Compensation and Industrial Health	WILLIAM K. HARRYMAN, Hackensack
Civil Medical Defense	ANDREW F. MCBRIDE, JR., Paterson
Emergency Education Program	HARROLD A. MURRAY, Newark
Physician Resources Committee	WILLIAM G. HERRMAN, Deal
School Health	ELTON W. LANCE, Rahway

surrounded by every scientific safeguard



A. M. A. Council Accepted Medicinals

Every lot of every **APC** preparation comes under the vigilance of laboratory technicians through every step of manufacture • Skillful hands and knowing minds check, recheck, and check again to insure end-products of...

- **constant quality**
- **uniformity**
- **clinical dependability**
- **economical, too...always**

Aminophylline Suppositories **APC** 0.5 Gm.
Aminophylline Tablets **APC** 0.1 Gm., 0.2 Gm.
Aminophylline Tablets **APC** Enteric coated 0.1Gm., 0.2 Gm.
Ascorbic Acid Crystals **APC**
Ascorbic Acid Tablets **APC** 25 mg., 50 mg., 100 mg.
Diethylstilbestrol **APC** 0.5 mg., 1 mg., 5 mg.
Diphenylhydantoin Sodium Capsules **APC** 0.1 Gm.
Ephedrine Hydrochloride Capsules **APC** 25 mg., 50 mg.
Ephedrine Hydrochloride Solution **APC** 3%, 30 cc.
Ephedrine Sulfate Capsules **APC** 25 mg., 50 mg.
Ephedrine Sulfate Solution **APC** 3%
Folic Acid Tablets **APC** 5 mg.
Nicotinamide Tablets **APC** 50 mg., 100 mg.
Nicotinic Acid Powder **APC**
Nicotinic Acid Tablets **APC** 25 mg., 50 mg., 100 mg.
Oleovitamin A Capsules **APC** 25,000 U. S. P. Units
Percomorph Liver Oil **APC** 50% with Viosterol 10 cc., 50 cc.
Phenobarbital Tablets **APC** 16 mg., 32 mg., 0.1 Gm.
Riboflavin Tablets **APC** 1 mg., 5 mg., 10 mg.
Sulfadiazine Tablets **APC** 0.5 Gm.
Sulfamerazine Tablets **APC** 0.5 Gm.
Sulfanilamide Powder **APC**
Sulfanilamide Tablets **APC** 0.324 Gm., 0.486 Gm.
Thiamine Hydrochloride Tablets **APC** 1 mg., 5 mg., 10 mg
Viosterol in Oil **APC** 10 cc., 50 cc.

AMERICAN
PHARMACEUTICAL COMPANY
MANUFACTURING CHEMISTS
NEW YORK 18, N. Y.
•
over 30 years of service to the profession

FOR

SOUND

OBESITY MANAGEMENT

NEW --- RATIONAL --- EFFECTIVE

NEW:

PROBESE CAPSULES are based on the newest concepts of obesity management.

RATIONAL:

Because the ingredients provided are conducive to effective weight reduction without affecting the mental and physical sense of well-being of the patient.

EFFECTIVE:

Excellent results obtain: PROBESE curbs the appetite, suppresses bulk hunger, elevates the mood, eliminates possible nutritional deficiencies induced by the dietary regimen.

ECONOMICAL:

Moderate prescription cost to the patient.

CAPSULES

PROBESE

(MARA)

Each PROBESE capsule provides:

Dextro Amphetamine Sulfate		5 mg.
Methylcellulose		250 mg.
Choline Dihydrogen Citrate		20 mg.
Inositol		10 mg.
Vitamin B6	(Pyridoxine Hydrochloride)	1 mg.
Vitamin A	(Fish Liver Oil)	4000 U.S.P. Units
Vitamin D	(Irradiated Ergosterol)	400 U.S.P. Units
Vitamin B1	(Thiamine Hydrochloride)	1 mg.
Vitamin B2	(Riboflavin)	2 mg.
Vitamin C	(Ascorbic Acid)	30 mg.
Niacinamide		10 mg.

In a small, easily digested capsule

AVAILABLE ON PRESCRIPTION ONLY AT ALL PHARMACIES

Write for literature and professional sample

The Mara Laboratories, Inc.

HARRISON NEW JERSEY

INFECTIONS OF THE URINARY TRACT IN

Results of therapy in 32 obstetrical and gynecological cases

ORGANISM	NO. OF CASES	RESULTS		
		GOOD*	EQUIVOCAL	POOR
No organic or obstructive disease				
B. coli	15	14	1	0
A. aerogenes	4	4	0	0
Aerobic diphtheroids	3	2	1	0
S. albus	2	2	0	0
Aerobic non-hemolytic streptococcus	2	2	0	0
Ps. aeruginosa	1	0	1	0
With organic or obstructive disease				
Ps. aeruginosa	3	1	0	2
P. vulgaris	1	0	1	0
A. aerogenes	1	1	0	0
TOTALS	**32**	**26**	**4**	**2**

Douglas, R. G.; Ball, T. L., and Davis, I. F.: California Med. 73:463 (Dec.) 1950

*"*A good result was recorded when in 72 hours or less the temperature fell to normal, the pyuria cleared, a negative culture was obtained and the patient was symptom-free."*

CRYSTALLINE

Terra

"The drug is tolerated by mouth and no serious side-reactions occur."

Douglas, R. G.; Ball, T. L., and Davis, I. F.: California Med. 73:463 (Dec.) 1950.

Antibiotic Division

OBSTETRICAL AND GYNECOLOGICAL PATIENTS

"prompt and effective" response

"In cases in which there is no organic or obstructive disease, the response to Terramycin as a urinary antiseptic is prompt and effective."

"The patients with pyelitis of pregnancy or simple postoperative cysto-ureteritis responded very promptly....There was a prompt drop in temperature, disappearance of pyuria and bacilluria, and symptomatic relief."

Douglas, R. G.; Ball, T. L., and Davis, I. F.: California Med. *73*:463 (Dec.) 1950.

Dosage: 2 Gm. daily by mouth in divided doses q. 6 h. is suggested for most acute infections. In severe infections, a high initial dose (1.0 Gm.) or higher daily dosages (3 to 6 Gm.) should be used. Treatment should be continued for at least 48 hours after the patient's temperature has become normal and acute symptoms have subsided.

mycin

HYDROCHLORIDE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Supplied: 250 mg. capsules, bottles of 16 and 100;
100 mg. capsules, bottles of 25 and 100;
50 mg. capsules, bottles of 25 and 100.

Pfizer

CHAS. PFIZER & CO., INC., *Brooklyn 6, N.Y.*

when decisions depend
on the

DIAGNOSTIC MEDIA

PRIODAX®

holecystographic agent with distinct dvantages: sharp, clear contrast of gall-ladder; greater freedom from side effects nd from confusing, equivocal shadows.

PRIODAX *tablets*
(brand of Iodoalphionic Acid U.S.P.)

NEO-IOPAX®

Urographic agent with distinct advantages: versatility—for intravenous or retrograde pyelography; excellent shadows with notable safety.

NEO-IOPAX *solution*
(brand of Sodium Iodomethamate U.S.P.)

Schering

CHERING CORPORATION · BLOOMFIELD, NEW JERSEY

PRIODAX · NEO-IOPAX

SCHERING

Widely prescribed

IN THE SEQUELAE OF EPIDEMIC ENCEPHALITIS

A THERAPY THAT EMBRACES
IN THEIR NATIVE STATE
THE ENTIRE ALKALOIDS
OF STRAMONIUM

STRAMONIUM PILLS

(DAVIES, ROSE)

0.15 GRAM (APPROX. 2½ GRAINS)

These pills exhibit the powdered dried leaf and flowering top of Datura Stramonium, alkaloidally assayed and standardized, and therefore contain in each pill 0.375 mg. (1/170 grain) of the alkaloids of stramonium.

Sample for clinical test and literature mailed upon request.

DAVIES, ROSE & COMPANY, LIMITED
Pharmaceutical Manufacturers
Boston 18, Mass., U. S. A.

To drain the flooded area
IN CONGESTIVE HEART FAILURE

"In severe congestive foilure, our most dependoble remedy is the mercurial diuretic . . . Its combinotion with theophylline has been o distinct odvance."[1]

Solyrgon-Theophylline is o highly effective combination of a mercuriol diuretic ond theophylline. It moy be given orally in certain cases.

Solyrgan-Theophylline is extensively employed for the treatment of cordiac and cordiorenol edema, dropsy of nephrosis and oscites of hepotic cirrhosis. The diuretic response does not "weor out," so thot in most coses administrotion moy be repeated as required for years, without loss of efficiency.

Noth,[2] for instance, in discussing o cose of Pick's diseose, states that the potient "has received obout 450 doses of mercuriol diuretics, neorly all of which were of Solyrgan given [porenterolly] . . . At no time hos he experienced orthopnea, nocturnol dyspneo, or episodes of dyspneo while ot rest. He is still working every doy as a banker . . ."

1. Hutcheson, J. M.: Management of Cardiac Failure. *Virginia Med. Manthly*, 74:458, Oct., 1947.
2. Noth, P. H.: Pick's Disease: A Recard af Eight Years' Treatment with Salyrgan, Ammonium Nitrote, and Abdaminal Paracentesis. *Proc. Staff Meet. Maya Clin.*, 12:513, Aug. 18, 1937.

Salyrgon, trademark reg. U. S. & Canodo

salyrgan®-theophylline

BRAND OF MERSALYL AND THEOPHYLLINE

Ampuls (1 and 2 cc.) — Ampins (1 cc.) — Tablets

Winthrop Stearns INC.
NEW YORK 18, N. Y. WINDSOR, ONT.

NORM

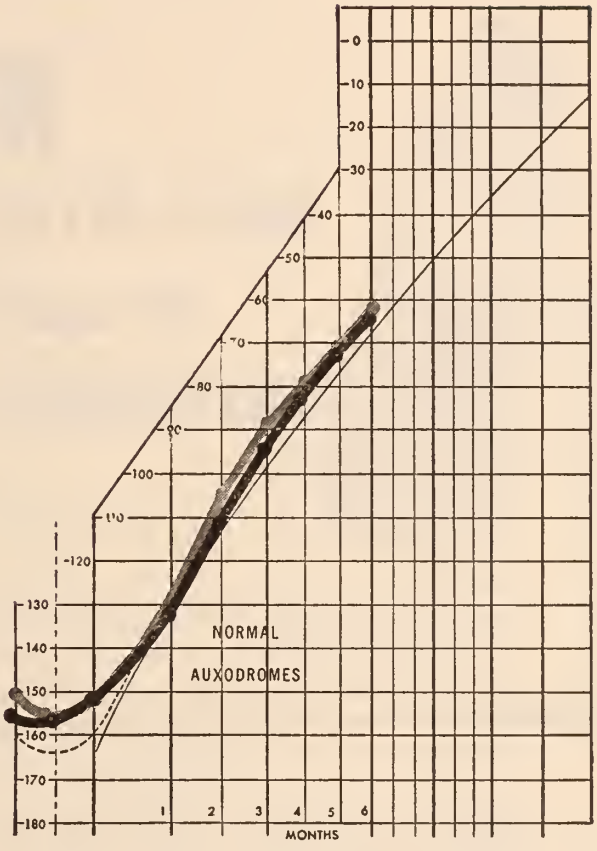
Normal schedule of development (auxodrome) plotted on Wetzel Grid.[1]

CURVE A

Composite Wetzel Grid auxodrome of 60 unselected infants on S-M-A from birth to 6 months of age.

CURVE B

Growth data, recomputed on Wetzel Grid, based on "selected subjects, most of whom were favored by environment;"[2] age: from birth to 6 months.



1. Wetzel, N. C.: J. Pediat. *29*:439, 1946.

2. Jackson, R. L., and Kelly, H. G.: J. Pediat. *27*:215, 1945.

Comparative development rates prove...

S-M-A®

builds husky babies

Recent clinical studies of development rates of *unselected* S-M-A-fed babies (curve A on chart) prove its value. The growth results compare favorably with "standards which are considered to approach the optimum for general pediatric practice."[2] (curve B on chart).

Because it is patterned after human milk **S-M-A®**

with Vitamin C added
is recognized as an outstanding food for babies.

Wyeth Incorporated, Philadelphia 2, Pa.

Wyeth®

When Lactation Fails

Rx LACTOGEN®

When the supply of breast milk is inadequate or when lactation fails entirely, there is no better formula than Lactogen. Designed to resemble mother's milk, it consists of whole cow's milk modified with milk fat and milk sugar. It differs, however, in one important respect: the protein content of Lactogen in normal dilution is one-third greater than that of mother's milk—2.0% instead of 1.5%.

A Complete Infant Formula In One Package

Lactogen contains all the ingredients of a well-balanced infant formula. In addition, it is fortified with iron to compensate for the deficiency of this mineral in milk.

Easily Prepared . . . Merely Add Water

Lactogen is simple to use. The prescribed amount is stirred into warm, previously boiled water. Either a single feeding can be prepared, or the entire day's quantity can be made up and stored in the refrigerator until used.

THE NESTLÉ COMPANY, INC.

COLORADO SPRINGS, COLORADO

Makers of Nestlé's Evaporated Milk
"No Finer Milk Can Be Produced"

ACCEPTED COUNCIL ON FOODS AND NUTRITION AMERICAN MEDICAL ASSOCIATION

NOTABLY HIGH IN PROTEIN CONTENT

Lactogen contains a generous amount of protein . . . more than enough to satisfy every protein need of the rapidly growing infant.

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 560

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month.

VOL. 48, No. 4 APRIL, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE

Last July I devoted my message to the committee system. I pointed out that in an organization of our size there was no practical way in which all the members could think through and act upon all the problems of the Society. The committee system represented the only democratic alternative. At that time I put in a plea for two things: attendance at committee meetings and articulate participation.

As the administrative year draws to a close it seems proper that this be reviewed. The response to the plea has been gratifying. With a few exceptions, committee attendance has been excellent and participation has been stimulating and heartwarming. Almost every committee had a commendable attendance ratio at all meetings. Even more interesting was the good participation in committee business by all who attended. Issues were thoroughly discussed and differences in points of view were aired with sincerity and enthusiasm. This meeting of mind with mind led in most cases to acceptable agreement.

As might be expected, the Board of Trustees rolled up a highly creditable attendance record with very few absentees at any meeting. I am well aware of the fact that the attendance of so many of our members at so many meetings has represented a real hardship in terms of personal convenience and some loss of time from professional work. While I am aware of it, it may well be that many members have given scant thought to the sacrifices which are necessary for the diligent performance of committee duties. It seems appropriate therefore that I take this opportunity of expressing the

thanks of the Society to the many members who so faithfully came to committee meetings and to add to that my personal gratitude for the toils of these many members — labors without which this administration could have done nothing.

Aldrich C. Crowe, M.D.

THE LICENSING OF OPTICIANS

New Jersey Senate Bill No. 254 provides for the licensing of dispensing opticians. This bill, both in principle and in detail, has been approved by our Committees on Welfare, Public Health, Conservation of Vision and Hearing and Legislation. The Legislative Committee, recognizing the imperative need for this legislation recommended complete and active support by all doctors at the state, county, and local levels.

Fundamentally, this is the same bill, with a few changes (such as a ruling against price advertising) which The Medical Society of New Jersey approved last year under the heading of Bill S-113. At that time, the bill was indiscriminately opposed by optometry and defeated.

Optical dispensing is an adjunct of medical care that has existed since physicians began prescribing corrective glasses. It closely parallels pharmacy in its association with medicine. For the best interests of public health, dispensers should be required to meet reasonably high standards. A growing number of states have such legislation. In New Jersey, it is still possible for any man to hold himself forth to the public as an "optician" regardless of qualifications or lack of them.

Because an increasing number of states surrounding New Jersey have enacted licensing legislation, early action by our own state is imperative now. New York and Connecticut have legislation and it is pending in Massachusetts and Pennsylvania. Under these conditions, New Jersey is already a natural dumping ground for persons who cannot qualify under the laws of nearby states.

This situation, plus the increasing scope of optometric refractive activities, is creating a condition that jeopardizes medical ophthalmic practice. It will be increasingly difficult for ophthalmologists, after carefully arriving at a prescription formula, to find a satisfactory and competent source for filling that prescription. Naturally, if an increasing number of these prescriptions were filled unsatisfactorily it would result in an eventual flow of more and more refraction cases to optometry and a subsequent loss to medicine.

The proposed legislation would give opticians no rights or privileges which they cannot now freely exercise. In view of the type of auxiliary relationship that exists (dispensing opticians to medicine), dispensers couldn't and wouldn't impinge upon any of the prerogatives of medicine. Dispensers look forward to eventual guidance and control by the medical examining board. On the face of it, the ethics and standards of medicine must always determine the limits within which the dispensing optician may serve both ophthalmology and the public.

ORIGINAL ARTICLES

TRENDS IN NURSING EDUCATION AND PRACTICE

ROYAL A. SCHAAF, M.D., Newark, N. J.

The American medical profession quite properly takes great pride in the existing standards of medical education, medical practice, hospital services and the many other facilities which contribute to the high quality of medical care now available to the people of this country.

Many of us as physicians, however, do not appreciate fully the contributions made by the allied professions and other professional groups to the attainment of our present high standards. Let me ask a rhetorical question. "Where would medical practice be today without the contribution of the dentist, the pharmacist, the pharmaceutical chemist, the basic science research worker, the worker in the field of pure science, the sanitary engineer and others including most especially the hospital administrator and the professional nurse?"

My present purpose is to emphasize the education and training of the professional nurse, which has made her an integral and indispensable unit in the provision of medical care.

The progress in nursing education in the past 30 years has roughly paralleled that of medicine. Requirements for admission to a school of nursing have been gradually increased until at the present time they closely approximate those of the better colleges for women. From the physical, nervous and emotional standpoint, they are much higher.

The course of instruction in approved schools of nursing has been expanded and amplified to include courses in English, psychology and allied subjects, thus including cultural as well as professional subjects in the curriculum. The so called "probationer" has fortunately disappeared, to be replaced by the preclinical student, who is no longer required to do penance by the performance of menial duties for three to six months in order to demonstrate fitness and aptitude for nursing. The time spent by a young woman "on probation" may have been good for discipline but it certainly contributed nothing to her morale nor to her enthusiasm for nursing as a profession.

The housing of students in our schools of nursing has been greatly improved—to a point where many of the nurses' residences in this state offer better accommodations and facilities than do the dormitories of our colleges for women.

In fact, nursing education in New Jersey as well as in other populous and wealthy states closely approaches the collegiate level. I believe that before long we shall see a four year course in nursing leading to the degree of Bachelor of Science in Nursing as the required education of the professional nurse. It is probable that there will be two major groups of professional nurses: the clinical and the administrative. Upon completion of the first two years under university auspices the first group will receive two years of additional training and instruction in approved hospitals, while the second group will continue in the university to be trained for public health nursing, psychology and similar fields of nursing practice. At the conclusion of the four year course, the degree of Bachelor of Science in Nursing —B.S.N.—will be conferred upon successful candidates by the university. Nursing will ultimately attain the dignity of an independent branch of the allied professions and will cease to be a dependent auxiliary to the profession of medicine. It will have a distinct field of practice separate from but closely associated with that of medicine—much the same relationship which now exists between pharmacy and medicine.

If we do not offer the professional nurse opportunities such as I have outlined, we cannot hope to continue to attract our best qualified young women to a career in nursing as we have done in the past.

In conjunction with the program outlined for the future Bachelor of Science in Nursing, we shall find it necessary to develop a large corps of practical nurses who have had a relatively short and intensive course in bedside nursing to provide most of the routine bedside nursing care both at home and in the hospital.

Many of us, as physicians, do not appreciate fully the strides made in nursing education and the high standards attained in this state. We owe a debt of gratitude to the New Jersey Board of Nursing and the New Jersey State Nurses Association for their untiring efforts in this endeavor.

There is uneasiness among some physicians, lest the professional nurse invade the field of medical practice. In my opinion, such fears are groundless. I know of no professional nurse who feels herself competent to make a medical diagnosis or to prescribe adequately for a patient. On the other hand, in one of the hospitals with which I am associated, we have several nurses who have attained an amazing skill and dexterity in the execution of certain technical procedures. Most of our intravenous therapy, transfusions, blood drawing, insertion of Levine and Miller Abbott tubes and similar procedures are carried out by them, and, I must say, with greater satisfaction to the patient and the doctor than when performed by most of the house medical officers we have had. Then too, what physician is qualified by training or experience to supervise the details of an operating room, a delivery suite or a premature nursery? As physicians, we should encourage the training of nurses to carry out technical procedures, not that they may be competitors in the practice of medicine, but that they may be depended upon as trustworthy and dependable aids to us in our care of the sick. In this period of great shortage of medical personnel, the nurse is our chief reliance in our effort to give adequate medical care to everyone in need of it. As physicians let us welcome the nurse as a professional equal and a loyal and competent co-worker in our never-ending battle against disease and death.

413 Mt. Prospect Avenue

PREVENTION OF CEREBRAL PALSY

Three possible ways in which to prevent new-born children from being afflicted with cerebral palsy resulting from Rh factor incompatibility are suggested in an article by Dr. Meyer A. Perlstein of Chicago, chief of the Children's Neurology Clinic at Cook County Hospital. He says that the most effective way to prevent this crippling condition is through selective marriages of Rh negative women with Rh negative men. Cerebral palsied children resulting from Rh incompatibility of the parents, come *only* from the marriage of an Rh negative woman and an Rh positive man.

Dr. Perlstein also outlines two other preventive methods. One is total blood transfusion for the child suffering from the effects of blood incompatibility and the other (still in an experimental stage) is use of injections of protective substances to prevent the pregnant woman's blood antibodies from damaging the child.

The author writes that only one in 25 children born to Rh negative mothers will develop erythroblastosis fetalis and that of those who do, only one in five will develop cerebral palsy.

He emphasizes prevention as the most important way to meet the problem of cerebral palsy from this cause. "The most effective method of preventing sequelae is before pregnancy; to this end, if a woman is aware of her blood type and husband's blood type, she may plan accordingly with respect to child-bearing. It may be that by making Rh testing a premarital requirement, Rh negative girls will seek out their consorts from among Rh negative men. It might be noted here that if the present suggestion to have the complete population typed because of the danger of bombing, it is very likely that the percentage of Rh babies may be lower, since there is no better medicine in prophylaxis than education."

DIABETIC KETOSIS*

PAUL B. FERRARY, M.D., Paterson, N. J.

The term diabetic *ketosis* is more descriptive than *coma* (which suggests unconsciousness) or *acidosis* which describes a secondary manifestation of the condition.

Ketosis may be the first acquaintance of a patient with his previously undiagnosed diabetes, but in these days of routine urinalysis such a situation is less frequently met. More likely the ketosis is a complication in a previously known diabetic. Chief causes are overeating, too little insulin, and infection. In a series of one hundred forty-five cases, Root and Marble[1] found 72 due to over-eating, too little or no insulin, or both, and 18 others in which these causes were suspected. In 24 cases, infection was the cause. In four, there was marked insensitivity to insulin, ketosis developing despite very large doses in the preceding days. Thyrotoxicosis, toxemia of pregnancy, and cardiac decompensation caused one case each.

Pathologic physiology of the condition may be briefly summarized. Insufficient insulin causes reduced carbohydrate metabolism. The failure of carbohydrate metabolism to furnish sufficient energy necessitates fat and protein catabolism. Ketones (acetone, diacetic acid, and beta-hydroxybutyric acid) are normal intermediaries or end products of fat catabolism and if present in normal amounts are utilized by the tissues or excreted in the urine. As the blood ketones increase, a point is reached where utilization and excretion cannot increase further. High blood ketones neutralize some of the plasma bicarbonate, and their excretion takes along much fixed base, chiefly sodium. To adjust for loss of base, more fluid is excreted. Thus the blood volume diminishes, peripheral stasis ensues, and death follows by peripheral circulatory collapse. Effects upon the carbon dioxide combining power, the blood sugar, liver glycogen stores and the blood urea nitrogen, are merely symptomatic or secondary to the basic pathologic processes; namely, failure of carbohydrate metabolism and the abnormal increase of blood ketones.

SYMPTOMS AND SIGNS

The onset is insidious, often with unusual and misleading symptoms and signs. The physician must be alert to the possibility of ketosis whenever a diabetic patient reports anything unusual. Urinalysis should promptly be done on a patient who has *any* symptoms not readily explained on another basis.

The classical early symptoms are those of uncontrolled diabetes: thirst, polyuria, weakness and hunger. These are shortly followed by headache, malaise, nausea, vomiting, abdominal pain and drowsiness. The latter will go on to the point of partial or complete unconsciousness.

Signs in the early phases may be few. Restlessness and some difficulty in breathing may be the earliest. The characteristic "fruity" odor of the breath may be detected. The chemical tests for glycosuria, hyperglycemia, ketonuria, and ketonemia are valuable at this early hour because they will clinch the diagnosis more surely than will physical signs, thus permitting early institution of definitive treatment when the hazard to the patient is least. Later, the signs are unmistakable. These later signs include partial to complete unconsciousness, dry cool skin, advanced dehydration, rapidly falling blood pressure, pronounced Kussmaul breathing, soft eyeballs, and failing pulse. These are particularly significant when combined with extreme glycosuria and ketonuria. The body temperature in ketosis may be decidedly subnormal. Even in the presence of severe infection it may not exceed normal range until fluid and electrolyte loss has been overcome.

The urine shows extreme amounts of glucose and ketone bodies. Renal incompetence may result in oliguria, albuminuria and granular casts; in severe cases anuria and marked azotemia[2,3] have been reported.

The blood shows marked hyperglycemia, diminished carbon dioxide combining power, frequently elevation of the blood urea nitrogen, and much acetone. Duncan[2] emphasizes the simplicity and importance of testing the blood serum for acetone by use of two drops of

*Read before the staff of St. Joseph's Hospital, Paterson, N. J., March 28, 1950.

1. Root, H. F., and Marble, A., in Joslin, E. P., *et al.*: *Treatment of Diabetes Mellitus*, 8th ed. Lee and Febiger, Philadelphia, 1946. (Page 430.)
2. Duncan, G. G., *et al.*: Medical Clinics of North America, 33:1537 (Nov. 1949).
3. Root and Marble, *loc. cit.* (1) page 441.

serum and the Denco acetone test powder commonly used for testing the urine. The serum test does not become positive until after the urinary acetone gives a 4-plus reaction, and a 3 or 4-plus serum reaction is considered of much graver significance than is a similar reaction in the urine.

DIAGNOSIS

The diagnosis of a well-advanced case is not difficult. The glycosuria and ketonuria generally serve to rule out other causes of unconsciousness.

In the earlier phases of ketosis, the diagnosis rests upon the suspicions of the attendant in illnesses which beset the known diabetic. If the possibility of the condition is not kept in the diagnostic consciousness of the physician at such times, frequent urinalyses may be neglected by the patient or physician, and ketosis may not be recognized until it is well advanced.

In the individual not known to be diabetic, routine urinalysis should be done whenever symptoms and signs (particularly thirst, polyuria, weakness, drowsiness, or unconsciousness) warrant the slightest entertainment of the diagnosis of diabetic ketosis.

TREATMENT

Preventive therapy will relieve the physician of the necessity of treating some severe cases of ketosis. Prevention begins with good, well-schooled diabetic patients. The patient should be instructed in the rudiments of carbohydrate metabolism so that he may realize the necessity and the "insurance element" to his well-being of the regular administration of insulin, the maintenance of proper diet and the testing of the urine for sugar. He should be encouraged to cooperate in keeping his blood and urine sugars as nearly normal as it is practicable to have them. He particularly should be educated against the fallacy of stopping diabetic care when he feels ill, has a fever, loses his appetite or undergoes any alteration which we know bring with them the threat of ketosis.

The physician should be alert to the possibility of the development of ketosis in uncontrolled diabetes, during periods of intercurrent disease of all sorts and take active measures to bring the diabetes under prompt control.

In the active treatment of diabetic ketosis, the pathologic physiology should be borne in mind and measures designed to reverse these mechanisms need to be instituted promptly and pursued vigorously.

It is not the purpose of this presentation to discuss the pros and cons of the many schools of thought. Instead, I wish to outline a plan which has been developed and found useful in St. Joseph's Hospital in Paterson. It consists, essentially, of modernization and modification of a plan which I reported to this staff[4] in 1939.

GENERAL MEASURES

Further loss of body heat should be discouraged by keeping the patient warm with several blankets. External heat may be applied to the trunk but *not* to the extremities.

A falling blood pressure, weakness of the pulse and a cold wet skin are signs of failure of the peripheral circulation and should be combatted by warmth, flat or Trendelenberg position, and circulatory stimulants such as coramine.

If the patient vomits once after admission, the stomach is washed. Some fluid, water or physiologic saline solution may be introduced through the tube. We used to use sodium bicarbonate solution for this, but as we are not convinced of its efficacy, its use has been abandoned.

A cleansing enema is given as soon as practicable.

FLUID AND ELECTROLYTE REPLACEMENT

Dehydration is one of the most striking features of these cases. It is combatted by the administration of fluid by mouth: water, fruit juices, tea and salted broth, when these can be taken, and by fluids parenterally, preferably by the intravenous route. The fluid of choice has been normal saline solution, but of late, having been made aware of reports of potassium deficiency in some of these cases,[2,5] I have changed to Ringer's solution. Although

4. Ferrary, Paul B.: Paper read before St. Joseph's Hospital staff on November 28, 1939.
5. Martin, H. E., and Wertman, M.: Journal of Clinical Investigation, 26:217 (March 1947).

I have had no complications due to hypopotassemia, the added moral support of 30 milligrams of potassium chloride in each hundred cubic centimeters is comforting.

Whether glucose should be added to the solution evokes much controversial discussion. Franks and others[6] demonstrated that improvement in the carbon dioxide combining power and disappearance of ketonuria were *not* accelerated by the early administration of glucose and that if glucose was withheld early the later utilization of glucose was enhanced. Our practice is to withhold glucose during at least the first two litres of fluid. These first 2000 cubic centimeters are permitted to run as rapidly as possible through a 20-gauge needle. Additional amounts, generally at a slower rate, are added continuously or almost so, usually alternating a litre of 5 per cent glucose in normal saline solution with a litre of Ringer's solution until a satisfactory state of hydration is reached. This state is generally reached after two to eight litres and 2 to 24 hours. When hydration is satisfactory, the patient can generally be depended upon to take adequate amounts of fluid and other nourishment by mouth and parenteral fluid administration is discontinued.

INSULIN

Insulin is needed to reestablish carbohydrate metabolism and to prevent the further excessive production of ketone bodies. Here again there are divergent views on its use. Hartmann[7] gives two units per kilogram at the beginning of treatment and 6 hours later, a half unit per kilogram. Rabinowitch and his coworkers[8] give 100, 200 or 300 units depending on severity. Half is given as protamine zinc insulin the other as regular insulin, half subcutaneously and half intravenously. Joslin, Root and White[9] recommend high initial dosage, followed by a flexible dose at half-hourly intervals, depending upon the patient's progress.

Our insulin of choice is the quick acting, either regular or crystalline type, because of speed of action and flexibility of dosage. The initial dose is high and is not withheld pending report of the blood sugar. It is estimated by the severity of the clinical picture, generally not less than 50 units and not more than 100 units. A similar dose is given in one-half hour. The urine is then tested for sugar and acetone every half hour and a dose of insulin is given according to the findings. The maximum dose here is generally 30 to 35 units. The blood sugar is repeated after 4 to 6 hours of treatment and if there has been some lowering of its reading the insulin schedule is considered adequate. The insulin is continued until acetonuria is negligible or absent in one specimen. Then its frequency of administration is reduced to two hours. This usually will require 8 to 24 hours and 300 to 1000 or more units of insulin.

Often by the first, and usually by the second morning after admission, the patient can be put on a diet of soft to regular quality and of a quantity sufficient for his estimated needs and his regulation to a normal diabetic regime can be accomplished in from 4 to 7 days.

PROGNOSIS

Uncomplicated ketosis in which treatment can be instituted before the patient is moribund should carry no mortality. The ketosis should be completely relieved within 24 hours. Patients in whom infection or other complicating factors exist, will have the outcome influenced by the complications. Here the help of antibiotics and the other measures at our command have helped lower the mortality.

Barach[10] gives a table in which the mortality at different phases of our methods of treatment is reviewed. In the 8 years preceding insulin therapy, the mortality was 41.6 per cent. In the 3 years following insulin it was 21.5 per cent. In the latest series (1944-48), it was 2.2 per cent.

CASE REPORTS

Case 1 illustrates ketosis developing in a previously unknown diabetic. A 21-year old male was admitted November 2, 1948. There was no previous or family history of diabetes. He was semi-conscious on admission with a history of weakness,

6. Franks, Maurice, *et al.*: Arch. Int. Med., 80:739 (Dec. 1947).
7. Hartmann, A. F.: Arch. Int. Med., 56:413 (1935).
8. Rabinowitch, I. M., *et al.*: Ann. Int. Med., 12:1403 (1939).
9. Joslin, E. P., *et al.*: Journal of the American Medical Association, 119:1160 (1942).
10. Barach, Joseph H.: *Diabetes and Its Treatment*, London. Oxford University Press, 1949 (Page 165).

pains in legs, polyuria and 20 pounds weight loss during the past two weeks. He had had weakness, vomiting, drowsiness and abdominal pain for two days. Skin and mucous membranes were very dry and he had a strong acetone odor of breath. Blood pressure was 134/80. Glycosuria was 4-plus and he had ketonuria. Blood sugar was 370. Carbon dioxide combining power was 29 volumes per cent.

Treatment: Fluids as tolerated by mouth. In the first 9½ hours, 5000 cubic centimeters of intravenous fluid and 560 units of insulin wer given. At the end of 18 hours, the urine was sugar and acetone free after 930 units of insulin and 8000 cubic centimeters of intravenous fluid. Insulin was reduced and blood sugar was 110. The carbon dioxide combining power was then 45 volumes per cent. He was rapidly established on a mixture of 35 units of protamine zinc insulin and 25 units of regular insulin and a diet of 1640 calories and discharged well controlled on the seventh day.

Case 2 illustrates the onset of acidosis in a previously well controlled diabetic as the result of a minor infection. A 39 year old female was admitted on October 21, 1949. She had been a diabetic for five years and was on diet with 30 units of protamine zinc insulin. Control was good. She was admitted with drowsiness and difficulty in breathing. Four days prior to admission, she had had fever and aching thought to be onset of grippe. Persistent glycosuria began 48 hours before admission followed by polyuria, thirst, drowsiness and difficulty in respiration. She showed some exophthalmos, but the thyroid was not palpable. Mucous membranes and skin were dry. She had some dullness and rales in the right axilla. Blood pressure was 100/70, pulse was 120. There was an acetone odor to her breath. Urine showed 4-plus glycosuria and ketonuria; blood sugar was 496. Carbon dioxide combining power was 17 volumes per cent.

Treatment: Water and fluids by mouth *ad lib.* In the first 24 hours of treatment she received 6000 cubic centimeters of intravenous fluid and 780 units of insulin, 605 units of this in the first 9½ hours. After 12½ hours of treatment, the urine was free of acetone and insulin was reduced to 2-hour intervals. After 20 hours of treatment, the blood sugar was reported as "too low to read". Blood urea nitrogen was 17. Carbon dioxide was 42. There was no clinical hypoglycemia. She took nourishment and fluids well and no intravenous fluid was given after the first 24 hours. She was established on a mixture of 20 units protamine zinc insulin and 25 units regular insulin and diet of 1710 calories and discharged well on the sixth day.

Case 3 illustrates masking of a severe infection by diabetic ketosis in a known diabetic. This 17-year old boy was admitted on March 15, 1948. A diabetic since age 11, he had had no medical supervision for more than two years. He takes a mixture of 15 units protamine zinc insulin and 18 units regular insulin and usually observes his diet. Five days before admission he was sent home from school because of chills and fever. Since then, he had been tired and sleepy and did not test his urine. On admission he was drowsy but not stuporous. He was flushed and dehydrated. His temperature was 99.2. Blood pressure was 130/86. There was a strong acetone breath. The blood sugar was 220 and the carbon dioxide combining power was 22 volumes per cent. He had had 40 units insulin before admission. In the first 8½ hours, he had 4000 cubic centimeters of intravenous fluid and 265 units of insulin. At the end of 16½ hours (after a total 445 units of insulin) the urine was acetone free. After 5 hours in the hospital, his temperature rose to 104.4 and the pulse to 136. Physical examination did not reveal a source of infection, but because of history of chills, fever and leucocytosis of 26,000 (with 84 per cent polymorphonuclears), penicillin was ordered. Subsequent physical and radiologic examinations revealed a right upper lobar pneumonia. On the morning after admission, the blood sugar was 84, and the carbon dioxide combining power was 47. The temperature responded after 48 hours. He was established on a mixture of 40 units of protamine zinc insulin and 20 units of regular insulin, and a diet of 1830 calories. He was discharged well on the ninth day.

SUMMARY

1. A brief review of the etiology, pathologic physiology, diagnosis and treatment of diabetic ketosis has been presented.

2. Emphasis has been placed on preventive treatment, i.e., regulation and education of the diabetic patient and treating the threat of ketosis in its incipiency.

3. The necessity of aiming treatment at the basic physiologic defects has been stressed. It is possible to treat these patients well and successfully with the facilities we have at hand in our institution.

80 Park Avenue

CALLING ALL L.I.C.M. ALUMNI

The Annual Alumni Day of the Long Island College of Medicine and the State University of New York at New York City College of Medicine will take place on Saturday, April 28. There will be a scientific session at Polhemus Clinic in the morning followed by a dinner at the Columbus Club, One Prospect Park West, Brooklyn, N. Y., at 7 p. m.

A VERY LOW SODIUM DIET *

BOTH PALATABLE AND VARIABLE

GEORGE G. ORNSTEIN, M.D., New York City

That the salt poor diet is important in the treatment of cardio-vascular-renal disease has been amply established. It is also generally believed that the sodium ion of the sodium chloride molecule is the offending substance, reduction of which leads to clinical improvement. What is not commonly understood is the profound reduction in sodium intake required to obtain a really satisfactory clinical response. How such a reduced intake is possible in a palatable, strength-retaining diet appears to have escaped every one.

Allen and Sherrill,[1] Kempner,[2] Bryant and Blecha[3] have demonstrated that if a low sodium diet is required, it is necessary to reduce the sodium content of patients' food to a maximum of 200 milligrams a day. Kempner[2] states that his rice and fruit diet provides 150 milligrams of sodium daily. However, in the first few months he maintains a rigid regimen of rice, sugar, fruit and fruit juices which furnish about 50 milligrams of sodium daily. When the blood pressure has been reduced, he allows other foods which may raise the intake to 150 milligrams of sodium. This usually occurs long after the beginning of the rice diet.

The total daily intake of sodium should not exceed 150 milligrams. I believe patients do their best on a diet of about *50 milligrams a day*. Certainly, at the beginning, the intake should not exceed 50 milligrams. When the pressure has been significantly reduced, 150 milligrams may be tolerated.

The rice diet, which alone provides such a low sodium intake, is monotonous and impalatable and presents another problem: a low protein intake. It provides only 20 Grams of protein which may be dangerous since an individual requires slightly less than a Gram of protein per single kilogram of body weight.

There is a simple way of attaining a more variable, less monotonous and more pleasant low sodium diet which provides 2500 calories, and adheres to an individual's requirement of at least 40 Grams of protein a day for nitrogen equilibrium (Best and Taylor[4]). It is accomplished by using certain low-sodium vegetables and reducing the sodium in other basic foods until they are rendered permissible.

Sodium is easily removed from meat, fowl, fish (fresh or salt water) and shell food by repeatedly boiling in water. After each boiling the water is decanted. The first boiling should be for one half an hour; subsequently the water need only be brought to a boil before decanting. Obviously, the water used in the process must be low in sodium or else the sodium will go from the water into the food. In some parts of the country the water contains as much as ten milligrams of sodium to 100 cubic centimeters of water. Well water is particularly high in sodium content. If in doubt, consult the table of *The Sodium Content of Public Water Supplies*.[5] If still in doubt have it analyzed (photometry test). If a photometry test is not available, use the one devised by Bryant, Iob, Phillips and Blecha.[6] This can be done at home and is valuable for testing sodium content of water, urine and other fluids of doubtful sodium content.

Urine may be tested every morning. Only ten drops are required. Water requires forty drops. To the ten drops of urine (or forty drops of water) add one drop of a ten per cent solution of potassium chromate. Shake well and add one drop at a time of a 0.73 per cent solution of silver nitrate. The end point is a rose coloration. Testing the urine indicates whether the quantity of sodium consumed in the previous twenty-four hours was under 200

* Presented to the Monmouth County Medical Society, December 27, 1950.

1. Allen, F. M., and Sherrill, J. W.: Journal of Metabolic Research, 2:429 (October 1922).
2. Kempner, W.: American Journal of Medicine, 4:545 (April 1948).
3. Bryant, J. M., and Blecha, E. E.: Proceedings of Society for Experimental Biology and Medicine, 65:227 (June 1947).
4. Best, Charles H., and Taylor, Norman B.: *A Physiological Basis of Medical Practice*, 2nd ed., Williams & Wilkins, Baltimore (1939).
5. Bills, C. E., McDonald, F. G., Niedermeier, W., and Schwartz, M. D.: Journal of American Dietetic Association, 25:304 (April 1949).
6. Bryant, J. M., Iob, V., Phillips, G. L., and Blecha, E. E.: Journal of the American Medical Association, 140:670 (June 25, 1949).

milligrams. No more than six drops of the silver nitrate solution should be required to change the color of the indicator. The average patient on a low sodium diet uses from one to four drops. Satisfactory water should provide the reddish end point with no more than one drop of solution.

This same test is used in preparing the non-permissible foods. The discarded water is tested after each boiling. It is usually satisfactory after the third boiling. Forty drops of this water should show a decided permanent change after adding one drop of ten per cent potassium chromate and one drop of 0.73 per cent solution of silver nitrate. If more than one drop is required to effect this change, it means that further decanting and boiling are required. Once the number of boilings required for the various foods has been determined, further testing may be omitted. The method has application to most food. Photometry tests show that when most foods have been treated in this manner the sodium content has been reduced to about 14 per cent of its original concentration. With this method, sufficient protein foods may be used that a palatable, variable and appetizing 1500 to 3000 caloric diet, low in sodium but not disruptive of the nitrogen balance, may be provided.

The following specimen recipes were prepared and the sodium content, carbohydrates, protein, fats and calories calculated. The sodium content of the meat was determined by photometry before and after the boiling. The vegetable values were taken from special tables.[5]

ROAST CHICKEN DINNER

	Na Mgs.	C Gms.	P Gms.	F Gms.	Cal.
Chicken, broiler—4 oz. (equal parts of dark and white meat)	97.20	....	24.80	2.80	133.80
Potato—1, medium-sized	0.80	18.00	3.00	....	85.00
Peas—fresh, ⅔ cup	0.90	12.10	5.40	0.30	68.70
Tomato—1, small	3.00	3.00	2.00	....	20.00
Bread—1 slice (3 mgs. sodium to loaf)	0.30	9.78	1.50	1.30	51.22
Olive oil—1 teaspoonful	0.02	....	....	5.00	45.00
Lemon juice—1 teaspoonful	0.03	1.50	..	....	6.00
Butter, sweet—2 teaspoonfuls	0.75	....	....	8.00	6.00
	103.00	44.38	36.70	17.40	415.72

Recipe: Roast four ounces of broiler (mixed equal dark and white meat). The potato is baked. Boil two-thirds of a cup of fresh peas until tender. One teaspoonful of butter may be divided between the baked potato and the boiled peas. A small sized tomato is sliced and to it one teaspoonful of olive oil and one teaspoonful of lemon juice may be added. One slice of a loaf of bread containing 3 milligrams of sodium is used and spread with one teaspoonful of sweet butter. This meal provides 103 milligrams of sodium.

When four ounces of a similar mixed dark and white broiler were boiled three times in fresh water and the meat tested for sodium with the photometer, it was found that the four ounces contained 14.6 milligrams of sodium; before boiling the photometer showed 97.20 milligrams of sodium. The boiling caused little change in taste and the entire meal contained 20 milligrams of sodium instead of 103 milligrams. Vitamins are destroyed but are replaceable. Little of the protein or fat is lost. Palatability, in contrast to a rice regimen, requires no comment.

Beef was treated in a similar manner. The sodium content (photometric) of four ounces of lean round steak was found to be 72.6 milligrams of sodium. A beef stew was made as follows:

	Na Mgs.	C Gms.	P Gms.	F Gms.	Cal.
Round steak, lean—4 oz.	72.60	....	23.00	15.60	232.00
Flour—2 teaspoonfuls (Gold Medal Enriched)	0.20	6.80	....	....	26.40
Spry—2 teaspoonfuls	0.04	....	....	10.00	90.00
Pepper, white—to taste	0.50	....	....	....	....
Water—one cup	0.70	....	....	....	....
Onion—two, small	1.00	16.00	....	....	64.00
Potato—1, medium		18.00	3.00	....	85.00
Thyme—1 pinch	0.36	....	....	....	....
Parsley—1 teaspoonful	1.40	0.50	....	....	2.00
	76.80	41.30	26.00	25.60	499.40

Recipe: Brown two level teaspoonfuls of flour in two teaspoonfuls of "Spry". Add one cup of water, two quartered small onions, one diced potato and white pepper to taste. Add one teaspoonful of parsley and a pinch of thyme. Simmer for about forty-five minutes. Add four ounces of lean round beef cut in strips. Simmer for fifteen minutes.

When four ounces of the same lean beef was boiled three times and a photometer test was done, the sodium content was reduced from 72.6 milligrams to 11.6 milligrams of sodium. The whole meal was reduced to 15.8 milligrams from 76.8 milligrams of sodium. Again, little of the taste, protein and fat were boiled out and the caloric value was essentially the same.

For breakfast and lunch "permissible" foods are used. As an example, a day's menu is shown.

BREAKFAST

Quantity	Item	Na Mgs.	C Gms.	P Gms.	F Gms.	Cal.
½	Grapefruit (4" in diameter)	0.20	9.80	0.50	0.20	45.00
¼ cup cooked	Oatmeal—20 gms. dry	0.50	17.00	3.50	1.90	53.00
2 tablespoonfuls	Lanolac Milk	2.60	....	....	....	145.00
1 teaspoonful	Sugar, white granulated	0.01	....	....	....	23.20
1 teaspoonful	Butter, sweet	0.75	....	....	12.00	109.00
2 slices	Bread, toasted	0.60	19.56	3.00	2.60	114.00
1 cup	Coffee	0.35	....	....	....	....
1 tablespoonful	Lanolac Milk	1.75	....	....	....	72.50
1 teaspoonful	Sugar, white granulated	0.01	....	....	....	23.20

LUNCH

Vegetable Lunch—Omit celery, lettuce, carrots, beets, spinach

Quantity	Item	Na Mgs.	C Gms.	P Gms.	F Gms.	Cal.
1 medium	Potato	0.80	18.00	3.00	....	85.00
⅔ cup	Peas, fresh	0.90	12.00	5.40	....	68.70
1 small	Tomato	3.00	3.00	2.06	....	20.00
2 small	Onions, boiled	1.00	16.00	....	....	64.00
2 slices	Bread (Wuest)	0.60	19.56	3.00	2.60	114.00
1 teaspoonful	Butter, Sweet	0.75	....	....	12.00	72.00
1 cup	Tea	0.10	....	....	....	....
1 tablespoonful	Lanolac Milk	1.75	....	....	....	72.50
1 tablespoonful	Sugar, white granulated	0.01	....	....	....	23.20
1 cup	Banana	0.01	23.00	1.00	0.01	92.00

DINNER

Quantity	Item	Na Mgs.	C Gms.	P Gms.	F Gms.	Cal.
1 portion	Beef stew (desodiumized)	15.80	26.00	26.60	....	503.09
2 slices	Bread (Wuest)	0.60	19.56	3.00	2.60	114.44
1 teaspoonful	Butter, sweet	0.75	....	....	12.00	72.00
10 thin slices	Cucumber	0.80	2.70	0.70	0.80	14.00
1 tablespoonful	Olive oil	0.03	....	....	15.00	135.00
1 tablespoonful	Vinegar, white distilled	0.09	....	....	....	....
1 sliced	Orange	0.20	11.06	0.80	0.20	55.00
1 cup	Tea	0.10	....	....	....	....
1 teaspoonful	Sugar, white granulated	0.01	....	....	....	23.20

These meals contained only 34.07 milligrams of sodium and about 197.24 Grams of carbohydrates, 52.56 Gms. protein, 61.91 Gms. fat, and 2113 calories. If the roast chicken dinner is used and the chicken desodiumized, the dinner has about 6 milligrams more than the beef stew desodiumized. Ornstein[7] has a book in press showing the values for virtually all "permissible" and desodiumized "non-permissible" foods. "Non-permissible" vegetables are rendered "permissible" by the same procedure used for meats. The book contains sauce recipes,

7. Ornstein, George G.: Book of low-sodium diet recipes, containing natural and desodiumized low-sodium menus. In press.

soups and desserts which the sodium low patient may eat without exceeding 50 milligrams of sodium while retaining 2000 to 3000 calories a day. Numerous and varied menus are presented.

Clinical results have been good. Although I am a chest specialist, I became interested in such a diet because I myself had an essential hypertension and suffered a right hemiplegia from which I have recovered. The monotony and unpalatability of two and a half months of the rice diet stimulated the search which culminated in the varied diet presented here. It is quite as low in sodium as the rice diet and, if we accept Kempner's statement that the rice diet contains 150 milligrams of sodium, a good deal lower.

Clinical data are sparse because the material begins in March 1950 with my return from Florida where the low sodium recipes were conceived. The patients were not hospitalized becaused no institution could serve the proper low sodium diets. They continued with their occupations as before excepting for a small number that rested for one or two hours after lunch. No medication was given except for vitamins and occasionally an anti-histamine at bed time.

The patients were ambulatory and came once a week to the office where they were educated in the preparation and use of the diet and instructed concerning the daily Bryant test for urine. They used new pots, dishes and cutlery because in a kitchen at home, contamination with salt is possible. Their water for cooking and drinking was investigated. If found unsuitable, distilled water was used.

Their occupations varied: physicians, a shoe salesman, internal revenue agents, advertising agent, housewives, Sister Superior in charge of a high school, salesmen, policemen, merchandise manager, lawyer, seaman, waiter, sales manager, secretary, manufacturer, insurance superintendent, tailor and a contractor. There were twenty-two males and eight females.

The patients were able to do their routine chores. They were not fatigued and were rarely hungry since they were allowed fresh fruit in addition to the regular prescribed diet. They were limited to a maximum of one liter of fluids. Kempner uses 700 to 1000 cubic centimeters of fluid. Page and Corcoran[8] use from 1500 to 2000. The latter authors state that there is danger of sodium retention if 3000 or more are taken a day. I have noted that patients on a strict diet do not require more than a liter of fluid; if they use more they are probably not adhering to the diet or are drinking from habit. In any event, two liters per day should not be exceeded. Nocturia is often eliminated in these patients.

Symptoms usually disappear promptly. The fatigue commonly encountered with the rice diet is not noted. The patients invariably lose weight and then stabilize. In patients previously on a salt-poor diet (400 milligrams), the loss may be slight.

The cardiac silhouette is usually reduced in size. This reduction may occur within two weeks but more commonly occurs after a month. The electrocardiogram corroborates the change in the size of the heart and retinoscopy shows a reversal of the changes commonly associated with hypertension.

Thirty patients on the above diet from two weeks to nine months show average blood pressure of 191.22 systolic over 113.11 diastolic at the beginning of treatment and now have 145.57 systolic and 92.52 diastolic. The blood pressure was taken as follows: on their visit to the office in morning once a week, and in a sitting position: three measurements were taken on both arms. An average was made of six measurements.

The following case is illustrative:

A female, 54 years of age, and a principal of a high school, stated that two years ago her systolic blood pressure was 260. She complained then of fatigue, vertigo and a sense of falling. When first seen in June she had the same symptoms. She had had a sub-total thyroidectomy twenty years ago. Her weight was 200 pounds and her blood pressure was 240 systolic and 140 diastolic.

An ophthalmoscopic examination was made on June 20. She had increased narrowing of the retinal vessels; the eye ground otherwise appeared to be within the normal limits. There were no hemorrhages or exudates.

8. Page, Irvine H., and Corcoran, Arthur C.: *Arterial Hypertension*, 2nd ed., The Year Book Publishers, Chicago (1949).

The electrocardiogram showed left axis deviation and high voltage. The T was inverted in leads LIII and VI. The findings were deemed compatible with a diagnosis of left ventricular hypertrophy and coronary insufficiency.

The x-ray of the heart measured 14.6 centimeters. A follow-up x-ray of the heart five months later measured 13.2 centimeters.

Blood chemistry:

	June 20	Sept. 7
Bl. sugar	129 mg. per cent	97 mg. per cent
Cholesterol	210 mg. per cent	200 mg. per cent
Bl. Chlorides ...	480 mg. per cent	475 mg. per cent
Urea N.	14.8 mg. per cent	16.7 mg. per cent
N. P. N.	33 mg. per cent	32.8 mg. per cent

She was placed on a 50 milligram sodium and 2500 calorie diet. The blood pressure slowly subsided; her last reading was on October 23, when she had a systolic 172 and diastolic 98. Her symptoms of fatigue, vertigo and sense of falling have disappeared. She has continued her activity as a Sister Superior and principal of a high school.

DISCUSSION

A low sodium diet has been constructed through the use of sodium-poor foods and foods rich in sodium rendered sodium-poor by boiling. The daily sodium intake can thereby be held to 50 or fewer milligrams. The diet is palatable and avoids the monotony of the rice and fruit diet.

In the treatment of cardiac failure in hypertension there can be no uncertainty as to the value of low sodium diets. There has been controversy as to whether the low sodium diet need be the *only* treatment for essential hypertension. A critical study of the poor results occasionally reported, usually indicates insufficient observation time, paucity of cases or inadequate control of the sodium intake. Usually the sodium intake can be shown to be well in excess of 150 milligrams.

Low sodium diets are only a part of the treatment. Other factors, cardiac, renal, endocrine and psychic conditions, must be considered. In view of the work already reported, however, no one may deny the importance of the low sodium diet in the therapy of hypertension.

SUMMARY

1. A simple method of reducing the sodium content of sodium rich meats, fish, fowl and vegetables has been described.

2. By using this method, a sodium diet of 50 or fewer milligrams a day may be constructed.

3. This diet is palatable, variable and less monotonous than the rice and fruit diet.

4. Forty or more Grams of protein were given per day to be in nitrogen balance.

5. This diet can be made to vary from 1500 calories to 3000 calories.

6. It is effective in hypertension.

New York, N. Y.
965 Fifth Avenue

HEBREW MEDICAL JOURNAL

The current issue of *The Hebrew Medical Journal* "Harofe Haivri", concludes the 23d successful year of its publication under the editorship of Moses Einhorn, M.D. Written in Hebrew, with English summaries, the *Journal* is a contribution to the development of the Hebrew medical literature. This issue includes papers on "Surgical Treatment of the Painful, Stiff Hip—(The resection-angulation operation)" by Henry Milch, M.D., "Electroencephalography and the Epilepsies" by Samuel J. Lipnitzky, M.D., and an article by Dr. M. Temkin on the various infectious diseases which prevailed in Palestine, such as malaria, typhoid fever, pappataci and amoebiasis.

In the section "Old Hebrew Medical Manuscripts", Dr. Zussmann Muntner of Jerusalem presents a 12th Century manuscript on diarrhea, by Abu'l Walid Ibn Rosh (Averroes, the Philosopher). In the section "Personalia", are included biographic sketches on Dr. David Israel Macht, on the occasion of the fortieth anniversary of his scientific research, and also on the life and work of Dr. Harry Friedenwald, Dr. Abraham J. Rongy and Dr. Nathan Ratnoff.

For further information, communicate with the editorial office of *The Hebrew Medical Journal*, 983 Park Avenue, New York 28, N. Y.

THE NEW JERSEY FORMULARY — SIXTH EDITION

Thomas D. Rowe, Ph.D.,[1] and John L. Varriano, M.D.[2]

The sixth edition of the *New Jersey Formulary* is being distributed to all physicians and pharmacists in the state. This edition, like its predecessors, represents the efforts of the members of the Joint Committee on Professional Relations. This committee is composed of practicing pharmacists and physicians selected by their state organizations.

The objective of the *Formulary* is to provide prescriptions which can be used in everyday medical practice and which can be made up readily in the average pharmacy.

All new preparations were recommended for inclusion by practicing specialists in various fields. These specialists acted as consultants to the committee in determining preparations to be included.

The committee recognizes that many of the modern drugs can be supplied only through pharmaceutical manufacturers. No attempt has been made to enter into the fields of antibiotics, hormones, and the like because of the highly specialized knowledge and technics required for their production. Instead, we have tried to present some of the basic drugs in new preparations putting emphasis on taste, color, and other factors considered important by the patient. For example, Compound Acetysalicylic Acid Elixir is primarily the old mixture of aspirin in solution. We have formulated a new Grape Elixir to be used for the vehicle. This makes this preparation more palatable for children for whom the medicated elixir is primarily designed. The Compound Acetysalicylic Acid Elixir is included because of requests for a preparation of this type from many pediatricians in the state.

Thirteen preparations in the fifth *Formulary* were deleted in the new edition. Compound Acetanilid Capsules were dropped because of the possible harmful effects of the acetanilid in the preparation. Compound Ipecac Syrup was deleted because of doubtful therapeutic value. For the same reason, we discontinued the listings of Compound Potassium Guaiacol Sulfonate Syrup. Neither of these syrups had been prescribed to any great extent. There is some doubt about the therapeutic value of Compound Ammonium Chloride Syrup, but this was retained because it is being prescribed so widely. A number of physicians asked that it be kept in.

Alkaline Potassium Citrate Solution with Belladonna Tincture was deleted because of limited use. All antacids containing sodium bicarbonate were dropped because of the generally accepted medical opinion that sodium bicarbonate tends to produce alkalosis and may be more harmful than beneficial. Preparations in this group are: Compound Bismuth Subnitrate Powder, Compound Bismuth Subnitrate Powder with activated Charcoal, and Compound Magnesium Carbonate Powder.

Ferrous Sulfate Elixir was deleted because of its limited use and because the commercial tablets are more effective.

Baby Oil was omitted because of the tendency of the oxyquinoline base to produce rashes. This type of item is seldom sold on prescription.

Zinc Chloride Mouth Wash was dropped because of lack of demand. Iso Alcoholic Elixir was deleted for the same reason. The latter is official in the *National Formulary*.

Sulfadiazine Syrup and Sulfathiazole Syrup were dropped because they tend to spoil unless made exactly according to formula. A simple syrup of slightly below U.S.P. strength, if used, caused spoilage. In addition, the Council of Pharmacy of the A.M.A. has pointed out the dangers in using sulfathiazole and has recommended its discontinuance in any form.

The three preparations containing Vitamin B and B Complex were retained but the formulas have been changed. These changes

1. Dean of Rutgers College of Pharmacy and Editor of the *Formulary*.
2. Chairman, Joint Committee on Professional Relations.

should be kept in mind. The new formulas are considerably stronger. The tendency is to prescribe larger amounts of thiamine and other B vitamins. To keep up with this trend, the preparations have been more than doubled in strength.

To replace the deleted preparations, ten new ones have been added. All of these have been carefully studied by members of the faculty at Rutgers College of Pharmacy and have been tested for stability and ease of preparation.

The new preparations are listed below:

Elixir Phenobarbitalis Flavum (Yellow)
Compound Magnesium Trisilicate Powder
Mercury Salicylate Ointment
Resorcinol Monoacetate Spirit
Grape Elixir
Compound Mint Elixir
Ointment Base
Suspension Vehicle
Compound Acetylsalicylic Acid Elixir
Atropine Sulphate and Phenobarbital Elixir

HEMATOMETRIA FROM COMPLETE AMPUTATION OF THE CERVIX DURING LABOR

NATHAN KARSHMER, M.D., New Brunswick, N. J.

Complete amputation of the portio vaginalis is one of the rare obstetrical complications. Many authors have recorded varying degrees of detachment or separation of the cervix during labor. Ingraham and Taylor[1] in a comprehensive paper give some 50 references to this subject. Finn[2] reports several cases in which there was partial loss of the cervix. In a personal communication to the author he states that in so far as entire loss of the cervix goes "I have not encountered it in a series of cases in the New York Hospital". Monovitch[3] mentions one case in which immediate examination ". . . . gave the impression as if the entire cervix was cut off with an instrument." Re-examination at a later date, however, revealed remnants of a cervix.

The reasons generally advanced for injuries to the cervix are: (1) primary rigidity of the cervix, probably an expression of infantilism; (2) abnormal elongation or antiflexion of the cervix; (3) diminution or "degradation" of muscle or elastic fibers of the cervix, either congenital or acquired as a result of inflammation, cicatrization or postoperative changes; (4) traumatization, such as produced by forceps or manual or bag dilatation of the cervix; (5) large fetal head with pelvic disproportion (here an abnormal situation in relation with the body of the uterus would have to be coexistent and admit compression of the soft tissues against the bony parts).

Interestingly enough, hemorrhage is not alarming in these cases and rarely is a direct cause of death. In only one case did a fatal hemorrhage occur, according to Monovitch.[3] The high mortality, quoted as 26 per cent, is almost entirely attributable to infection and is usually enhanced by the obstetrical operations necessary in these cases. Vesico-vaginal fistula is not an infrequent occurrence and was the cause of a fatal infection[3] in four cases.

In the vast majority of reports, the damage to the cervix was considerable at the time of delivery. However, end results were usually good, in that healing took place with restoration of a fairly serviceable cervix.

Unfortunately, I did not see the case I am reporting until some months *after* her delivery. I am therefore unable to state categorically just what happened during parturition to produce the complete loss of her cervix.

A 23 year old woman was first seen October 5 because of abdominal pain associated with epigastric distress and nausea. This pain had been present for the past two weeks, increasing in severity, so that now it was well nigh unbearable.

1. Ingraham, C., and Taylor, E. S.: American Journal of Obstetrics and Gynecology, 53:873 (May 1947).
2. Finn, William J.: American Journal of Obstetrics and Gynecology, 59:667 (March 1950).
3. Monovitch, A. E.: Gynekologie, 37:513 (September 1938).

In February of the previous year, the patient had a difficult forceps delivery at home. She was told she had sustained extensive damage to the soft tissues. Since this time she had never menstruated and has had considerable pain in the back and right lower quadrant.

The patient had noticed rapidly increasing enlargement of her abdomen, with some nausea but no vomiting and absence of fetal movement. She just "did not feel pregnant" despite the amenorrhea and enlargement of the abdomen.

General examination was essentially negative. Vagino-abdominal examination revealed a large, firm intrapelvic, tender mass reaching upwards midway between the umbilicus and ensiform. This mass was tense, regular in outline and did not give the impression of a fetus. The introitus was parous with the pelvic floor badly torn, especially to the right. No cervix could be either felt or seen. The vaginal vault was dome-like in character and failed to reveal any evidence of dimpling. Where the cervix should have been, a fine thin flat firm scar could be seen and felt. A large doughy mass could be felt protruding into the cul de sac. The adnexa could not be outlined, except that on the left side there seemed to be some tenderness.

A diagnosis of hematometria was made with the thought that it was secondary to an avulsion of the cervix either spontaneous or traumatic in origin.

The patient was seen by a consultant, who considered her pregnant and advised "watchful waiting". This was done for 48 hours, but the patient complained so very bitterly of the severe pain that on October 7 it was decided to do an exploratory laparotomy. A mid-line incision five inches long was made. The uterus was found to be considerably enlarged, extending deep into the cul de sac and up towards the mid-line above the umbilicus. It was pink in color and studded with several small subserous fibroids. The right tube and ovary were normal. On the left side, there were varicosities of the broad ligament and the tube was chronically inflamed. Salpingectomy was done by cornual resection. The appendix was removed prophylactically and the subserous fibroids were shelled out with ease.

At the suggestion of the consultant (who also acted as my assistant) nothing further was done to the uterus because he considered it to be a pregnant one. The abdomen was closed in layers and the patient returned to her bed.

Blood studies made the day before the operation showed a four-plus Kahn; 85 per cent hemoglobin; 4,310,000 red cells; 8500 leucocytes; a normal differential count and a four-plus Wassermann. Urine reports were consistently negative. The tissue report showed chronic salpingitis, chronic appendicitis and multiple fibromyomata.

Subsequent course was stormy. Medication failed to affect any significant relief from pain. It finally became apparent that a second exploration was indicated and this was done on October 17 (ten days after the first laparotomy).

The original incision was reopened and enlarged upwards to the left of the umbilicus. The uterine cavity was entered with a large bore needle and a quantity of thick reddish-brown fluid was obtained. A supravaginal hysterectomy was done in the usual manner. The tissue report on the uterus was chronic metritis. Because of the complete absence of the vaginal portion of the cervix, it was felt that restoration and maintenance of a cervical canal was impossible. The patient made an uneventful recovery after this second operation, and was discharged as "cured" on October 30.

While partial or complete amputation of the cervix during labor is an infrequent occurrence, this mishap is of considerable importance in that the mortality is high, as is the incidence of vaginal fistulae. It usually occurs in difficult deliveries associated with contracted pelvis and rigid cervix. The first inkling the obstetrician may have is the presence of a detached or partly attached portion of the cervix either preceding or surrounding the presenting part. At this time, controlling the hemorrhage and/or shock becomes of paramount immediate importance with prevention of infection next on the agenda.

Prophylaxis is most important since, once the extensive trauma to the cervix has occurred, very little can be done to rectify it. The handling of these patients is a problem in dealing with disproportion worsened by a rigid or non-dilatable cervix. To many, this calls for other forms of delivery, with cesarean section getting considerable preference.

SUMMARY AND CONCLUSIONS

A detailed case history is reported in which hematometria constituted the unusual end result of a traumatic amputation of the cervix. The usual causes of this serious complication are mentioned, and a brief outline is given for handling this difficult situation.

92 Carroll Place

SUPRAPUBIC PROSTATECTOMY*

HERBERT M. ILL, M.D., Newark, N. J.

In 1885, von Dittel was the first to remove a part of a prostate gland suprapubically. Two years later, McGill did partial suprapubic prostatectomies. Not until 1896 was the first suprapubic enucleation attempted and accomplished by Dr. Eugene Fuller of New York City. In 1890, Dr. Hugh Young of Baltimore, did a suprapubic drainage on a man with complete retention and in uremia. He recovered and Dr. Young opened his bladder the second time and enucleated his prostate. This was the world's first two stage suprapubic prostatectomy; the patient recovered.

The symptoms of prostatic hypertrophy are: frequency, nocturia, progressively slow stream, dribbling, incontinence from over-distention, difficulty in starting the stream, increasing distention of lower abdomen, partial or complete retention following coitus, retention (particularly after drinking alcohol or taking a long automobile ride), lethargy and uremia.

The diagnosis is made by:

(1) Digital examination through the anus.

(2) Catheterization after voiding to determine the presence and amount of residue urine.

(3) Cystoscopic examination to determine the size and type of enlargement from within the bladder and to rule out other pathology.

(4) Cystogram and urethrogram which are helpful in determining the size of the gland (these last two can be both very helpful and also very deceptive). When the diagnosis of carcinoma is made, the suprapubic operation is *not* performed.

Preparation for operation is vitally important. Up to twenty years ago, the death rate from suprapubic prostatectomy was between 30 and 35 per cent in the hands of surgeons who gave their patients little or no pre-operative "work-up". The introduction of transurethral resection was a blessing to these men. About eighteen years ago, one of my colleagues made the statement that since he had changed from suprapubic prostatectomy to transurethral resection, his death rate dropped from 35 per cent to 8 per cent. My mortality rate from the suprapubic procedure was 5 per cent at that time.

PR-OPERATIVE CARE

When the procedure of the suprapubic approach is decided upon, a number twenty French catheter, or preferably a four holed number twenty French plain latex catheter is strapped in place directly after cystoscopy. If there is a large amount of residual urine, the bladder is decompressed slowly, the drainage bottle being elevated to about two feet above the symphysis and gradually lowered as the tone and size of the bladder returns to normal. Many of these patients bleed profusely if their bladders are allowed to stay empty directly after the catheter is inserted.

If the prostate is very large, cystoscopy may be impossible.

The next procedure is a bilateral vasectomy. A one-quarter inch of both vasae is removed between plain catgut ligatures. This prevents epididymitis which frequently occurs either pre- or postoperatively, the former in about 18 per cent of cases and the latter not nearly so frequently.

All patients then should have blood urea, creatinine, and sugar determinations made plus whatever chemical studies are found necessary. Blood examination for syphilis is also ordered. Diabetes, if present, must be put under control and the blood urea must return to normal or be under 18 on repeated examinations before prostatectomy is done. If catheter drainage does not cause the patient's blood urea to reduce as desired, a two stage operation is performed. A cystogram is done on every patient to determine the presence of diverticulae which are occasionally missed during cystoscopy, particularly if the prostate is very large. A diverticulum, if present, is first removed, making the prostatectomy a two stage operation.

Intervenous pyelograms are made only as indicated and not routinely. The cystograms are so taken that at least one exposure shows the kidney areas.

I never do a prostatectomy without a competent medical consultation, particularly as to cardiac evaluation.

One of the important and often neglected preoperative precautions is medical evaluation. The average prostatic patient is in the arteriosclerotic heart disease group. Angina pectoris, coronary thrombosis and congestive failure are frequent accompaniments of this type of heart disease. The surgeon wants his medical colleague to ascertain if the patient can tolerate an operation. This re-

* Read before the Graduate Seminar of the American Urologic Association, November 1, 1950.

quires an answer to two different questions. First, if a cardiac condition exists, is the prognosis of this good enough to warrant a major operation? Second, when the operation is contemplated, the physician should have some idea as to the surgical or operative mortality in various cardiac disorders.

To decide the first point one should be certain that the patient will live long enough to enjoy the results of the operation to make the temporary discomfort and risk worth while.

To estimate surgical mortality in patients suffering from heart disease is our second consideration. To determine the role played by the heart in the outcome, deaths may be classified as "unexpected" or as "inevitable". In this first group are such unexpected circulatory disasters as coronary thrombosis, cerebral hemorrhage, embolism or circulatory failure. In the "inevitable" death category, we include those due to the underlying disorder of the heart at about the same time as they might have died regardless of the operation. Statistics gathered from 400 cardiac cases subject to major surgery, such as prostatectomy, show a total operative mortality of 12 per cent with the "unexpected" mortality of only 6 per cent. This latter figure readily indicates that, as a group, patients with heart disease undergo surgical procedures fairly satisfactorily.

Every anticipated prostatectomy patient should have a complete cardiac appraisal including chest x-ray and electrocardiography. No one should be subjected to surgery until even early signs of congestive failure have been corrected by adequate dehydration and digitalization.

Red blood cell count and hemoglobin are not conclusive in determining the true condition of the blood. Blood volume study should always be ordered. In Newark, at St. Barnabas Hospital, we have done over 500 blood volume determinations on major surgical procedures including prostatectomies. In all whose deficits have been corrected (by transfusions) there was *not a single case of shock*.

The blood-volume procedure we have adopted is the one described by Gregersen, and modified by Beling, Morton and Bosch of our hospital. It consists of a plasma volume determination using Evans Blue Dye (T-1824), and calculation of whole blood volume, cell volume, total circulating protein, and total circulating hemoglobin mass. These values are subtracted from the expected normals for each patient. These normals are derived from that patient's normal healthy weight or standard weight (height-weight tables); using 85 milliliters per kilogram for blood volume; 45 milliliters per kilogram for plasma volume; and 40 milliliters per kilogram for cell volume.

These determinations are carried out several days before surgery is contemplated. Deficits determined are corrected by administration of whole blood transfusions up to the expected normal for each patient. Transfusions in amounts up to 1000 centimeters per day have been given with no evidence of "over-loading".

It was at first, hard for me to believe that a man, eating three square meals a day, functioning at work and with a normal blood count, could possibly have a blood volume deficit. A striking example of this was in a 90 year old man who had normal red blood cell count and hemoglobin. He went into profound shock a half hour after the second stage of the prostatectomy. There was no excessive bleeding. His blood volume deficit was 1500 cubic centimeters and it took a liter of whole blood to bring him out of shock. In my opinion, shock would *not* have occurred, had he been transfused pre-operatively. When the blood picture is normal or brought to normal level, there is one thing left and that is the "over-all impression" of the patient. Not uncommonly I have done a two step operation on a patient when I just haven't liked something unexplainable about his condition. I have been right too often to ignore this observation. This brings to mind an obese minister with all tests satisfactory for prostatectomy except this "over-all impression". A catheter had been left in place ten days. After cystotomy, he developed complete suppression lasting twenty-four hours. Prostatectomy at this time would have been very dangerous. His second stage at a later date was uneventful.

TECHNIC

Having received my training in prostatic surgery under the able tutelage of the late J. Bently Squier, I have always favored the one step operation using the Squier technic. There are, however, many poor risks who do better with the prolonged preparation used in the two step procedure. The very large edematous prostates recede in size much quicker with suprapubic drainage than with the catheter. Patients with persistent, excessive urea retention, come back to normal more quickly with preliminary suprapubic drainage.

My choice of anesthesia is intravenous sodium pentothal with nitrous oxide and oxygen. Pre-operative medication is morphine sulfate grains one-sixth to grains one-eighth, depending on the age of the patient (the older man receiving the lesser dose) plus atropine sulfate, grains one-two hundred.

Through the catheter, which is left in place, the bladder is filled with normal saline before the anesthesia is administered. A string which hangs over the foot of the table closes the end of the catheter and the bag of the Foley catheter is allowed to empty. If a plain catheter is used the anchoring adhesive tape is removed. At first, I used to fill the bladder and remove the catheter immediately, but too often the patient voided during anesthesia to the amount of his residual urine or less, making

the bladder more difficult to find. The abdomen, genitalia, and upper thighs (which were previously shaved) and the catheter, are painted with two coats of merthiolate. The patient is draped so as to expose the penis when desired without breaking any sterile technic.

A median longitudinal incision about four inches in length is made from the symphysis upward through the skin, fat and fascia. The recti muscles are separated and by blunt dissection, the bladder is exposed under the symphysis in the space of Retzius. The peritoneal fold is pushed upward and the bladder opened as superiorly as possible. An attendent then removes the catheter by pulling the string over the foot of the table.

I have devised an addition to an Allis clamp which facilitates grasping the side of the bladder plus the mucosa more quickly and easily in the presence of escaping saline from the initial bladder incision. I have added a five-eighths inch piece of metal to the back side of one of the jaws. The clamp is inserted into the small hole made in the bladder, well below the clamp ends. It is then opened and gradually withdrawn until the clamp snaps open. The short end is then found to be outside the opening and the longer end in the bladder. The open instrument is again pushed downward and closed, having within its grasp the entire thickness of the bladder wall including the mucosa. The other side of the hole is then easily seen and grasped and the operator proceeds with the operation.

The right index finger is then introduced into the prostatic urethra breaking through the anterior commissure. By blunt dissection, with the tip of this index finger, the line of cleavage between first the left lateral lobe and then the right lateral lobe and the capsule is found. By following these lines of cleavage, backward, by sweeping the index finger down one side and then the other, the lateral lobes including the posterior lobe are freed from the capsule and the entire gland is thus also freed from the bladder wall. It is important to stay as close to the capsule as possible so as not to leave any adenomatous tabs behind. In larger glands it may be necessary to use both the right index and middle fingers alternating with the left index and middle fingers for this procedure. After the gland is freed entirely from the capsule, the junction of the prostatic urethra and membranous urethra are broken apart by means of pressure between the thumb and index finger. Only occasionally is it necessary to use sharp instruments for this procedure. During my two years with Dr. Squier, and twenty-five years in private practice, *I have never seen a case where a finger in the rectum was necessary to enucleate a gland.* Rarely does it take longer than fifteen to twenty minutes for the entire operation.

POSTOPERATIVE CARE

A large wet pad is then inserted into the bladder and pressure applied while the patient is put in Trendelenberg position. A bladder retractor is then introduced and the middle of the posterior lip of the prostatic cavity is grasped with a "long short mouth forceps", taking in between one-half and one inch of that posterior lip, depending on the size of the gland removed. This piece of tissue is then cut out with a pair of scissors. Occasionally there is also a very prominent interureteric ridge which should be corrected at this time. This can be cut with scissors or, better, a segment looped out with the electric current. If the bleeding is not excessive, nothing more is done except closure with a Frier tube in place. If bleeding is excessive, a seventy-five cubic centimeter Foley catheter is inserted through the penis into the bladder and a cone of oxycell gauze is placed over the bag which is inflated large enough so that the bag remains in the bladder and does not go into the prostatic cavity. Enough traction is put on the catheter to stop excessive bleeding. An assistant holds this traction until the operation is completed. The bladder is then closed with a number one plain catgut continuous suture from below upward to the smallest size Frier tube which is in place in the bladder. Another piece of number one plain catgut anchors the Frier tube to the upper end of the incision just above the side hole. The surgeon must be sure that this ligature goes through the middle of the tube so that it can readily be cut to remove the Frier tube. A rolled rubber tissue drain is placed in the space of Retzius and the Frier tube which is in the superior part of the bladder is brought down to the lower end of the abdominal incision against the rubber tissue drain. The abdominal wall is then closed in layers using continuous chromic catgut and three heavy silk figure of eight retention sutures. A heavy silk suture also anchors the Frier tube to the skin.

After the dressing is applied the end of the catheter is put through the small hole (one inch in diameter) of the Hamer anchor. The same amount of traction is then applied and a Kelly clamp is secured to the catheter distal to the frame. This retains the same tension, allowing free motion of the legs. It is important to insert the catheter into the Frier tube to the proper depth before placing the Frier tube into the bladder. This catheter is not in place until the patient is in bed and suction applied. We use water suction and are very satisfied with its performance. Electric suction pumps have not been nearly so satisfactory.

Traction remains for two to two and one-half hours depending on the amount of bleeding on the table and then is gradually released in the following manner. Another Kelly forceps is placed on the catheter just distal to the one in place which in time is removed, relaxing the pull. This is done every fifteen minutes until all the traction is released. The anchor is then removed and the cathe-

ter is allowed to drain into a pus basin. Five hundred cubic centimeters of five per cent glucose in distilled water and five hundred cubic centimeters of five per cent glucose in saline are given intravenously not sooner than six hours postoperatively. There is definitely less oozing of blood if the circulating blood is not thinned out too soon by intravenous solution. The day following the operation the water in the Foley bag is removed and on the second postoperative day, the entire catheter withdrawn from the bladder and penis.

On the third day postoperatively and occasionally the fourth, the Frier tube is removed and the urine sucked out by means of a Guile Disk. Five to ten days after this procedure, the patient usually voids. If the patient does not void at the end of ten days, a twenty-six French sound is passed; otherwise, the urethra is never again instrumented. Postoperatively, the only routine procedure followed in anal manipulation is the insertion of a thermometer. Rectal tubes are never used! Occasionally my assistant, nurse, or myself will insert a soft, number eighteen French catheter to give a low enema, if necessary for distention. One of my patients developed a severe hemorrhage from the prostatic bed following the passage of a rectal tube. Once is enough for me.

In my patients where no bag or packing was used, I had the good fortune of never seeing a secondary hemorrhage, a fact I can not boast of after packing or using traction. I believe that the uninterfered-with contractions of the fibers in the capsule, gradually close off the bleeders and mechanically prevent secondary bleeding. If pressure is applied, clots form in the vessels which later are pulled loose by the contraction of the capsule fibers. I believe, that infection is more likely to occur in these clots which predispose to secondary bleeding. None of my secondary bleedings, however, have so far been fatal. Gross blood rarely disappears entirely before the third or fourth postoperative day whether or not packing or traction is used. The early relaxation of tension, and withdrawal of the catheter, largely, I am sure, is responsible for the absence of incontinence in our patients. I do know that it has been the experience of some of my friends, that partial incontinence has occurred for a month or two after six to eight or more hours of traction. Also, is the external sphincter occasionally torn by the operator when his rectal assistant pushes up the prostate with its neighboring parts, making this area more easily reached? Even with these few cases of incontinence, the ratio is very low. Goldstein reports fourteen hundredths of one per cent incontinence in seven thousand suprapubic prostatectomies. Primary closures have been done since 1927 and have not enjoyed much popularity. Personally, I am in no hurry to send my patients home and in fact am glad to have the patient who had some sort of packing, near, until that tenth postoperative day has passed. One of my friends voided on his fifth postoperative day and went home on his eighth day and returned on his tenth day to have clots removed from his bladder. The older I get, the more anxious I am to be spared unnecessary worry, even though my patients do have to spend two or three days longer in the hospital.

Spasms are annoying so long as the bag or catheter remain in place, in the majority of cases. Those patients with no catheter or packing in place, rarely are bothered with spasm. My patients are out of bed after the Frier tube is removed and, I am sure, heal faster than before when left in bed longer. Emboli are rare.

Penicillin (400,000 units a day) is routinely given pre- and postoperatively. Streptomycin and sulfadiazine are used when needed. Aureomycin has saved more than one of my patients. These drugs have been a great help in this type of surgery. Morphine sulfate (grains one-eighth to one-sixth) is given postoperatively for spasms only as necessary. Tap water is given by mouth the day of operation as tolerated; tea, broth, and water the first day postoperatively and fruit juices only after that if no distention is present. Fruit juices very frequently are great gas producers. A regular diet is ordered for the third postoperative day.

Last, but not least by any means, is the importance of nursing care. Many of these older men are senile and worse than babies. They have to be helped to drink and eat. I am sure that nurses have been directly responsible for many of my patients getting well.

Knowledge of the mechanics of the suction apparatus is important to keep the patient dry and comfortable. Frequent inspection of the drainage as to the amount of bleeding and amount of drainage must be made.

Postoperative care is so important that I never do a prostatectomy outside of my own hospital. I refuse to divide the responsibility of the immediate postoperative care with anyone else.

After two days of voiding with no suprapubic drainage, the patient is discharged from the hospital. One month to six weeks later his urine is entirely free of white blood cells and in another month, over eighty per cent of the patients boast of the fact that sexual life has been restored or improved and that in general they feel ten years younger.

15 Washington Street

SUBARACHNOID HEMORRHAGE COMPLICATING SICKLEMIA

WITH REVIEW OF NEUROLOGICAL MANIFESTATIONS AND A CASE REPORT*

MILTON R. BRONSTEIN,† M.D., Newark, N. J.

The varied clinical picture of sicklemia ranges from acute abdominal pain, through acute arthritis to convulsions. This paper reports a case of sicklemia with complicating subarachnoid hemorrhage and sickling of the red cells with no anemia. It highlights the importance of testing all patients of Negro ancestry for sickling.

The neurologic complications[1] include drowsiness, stupor, coma, hemiplegia, aphasia, headache, convulsions, stiffness of the neck, irritability, nystagmus, pupillary changes, blindness, cranial nerve palsies and/or parasthesias of the extremities.

According to Bauer[2] and others[3,4] the fundamental anatomic lesion seems to be engorgement of greatly congested capillaries with sickled erythrocytes. Some type of thrombo-angiitis obliterans (with multiple areas of perivascular hemorrhages and focal necrosis) could reasonably be considered a consequence of hemostasis and engorgement.

Bauer[5] has also described cases in which pain in the bones and joints and acute abdominal distress were attributed to sicklemia even though anemia was absent.

Hughes *et al.*[4] fill in the pathogenesis and assert that there are infiltration and degenerative changes in the vessel walls, perivascular edema, cellular exudation, hemorrhage and necrosis. They say that where the collateral circulation is poor, there occur such symptoms as confusion, psychosis, mental changes, convulsions, aphasia, hemiplegia, parasthesias, delirium and coma. Spinal fluid in such cases is bloody, under increased pressure and shows an excess protein and inflammatory cells.

Ordway and Gorha[6] state that no anemia is present even when as many as 80 per cent of the red blood cells are abnormal in form.

One case was reported[7] in a white Portuguese female age 12 with a neurologic complication of sicklemia. She died within 24 hours and was diagnosed as meningitis (thrombohemorrhagic "accident"?). The patient went downhill rapidly with jaundice, high fever, intense abdominal and muscle pain, loss of speech and paralysis of the right upper limb.

Almklov and Hansen[8] reported subarachnoid hemorrhage as a complication of sickle cell anemia with a staphylococcus albus meningitis treated successfully with aureomycin. In this case there was definite anemia. This brings up an important point. *Any acute infection is capable of bringing on a "sickle cell crisis".*[9] This is further emphasized by a case[10] of generalized tuberculosis and tuberculoma of the brain associated with sickle cell anemia, and again emphasized by the report of a case[11] of acute rheumatic heart disease with massive cerebral hemorrhage and sickle cell anemia.

CASE REPORT

A two year old colored female was admitted to the Newark City Hospital on February 6, 1950, with the history of a convulsion about one hour before admission. She had been well until five months previously when a rash was noted on her face and forehead. The rash persisted despite various treatment by physicians. For about three weeks before admission the patient complained of "belly-aches". Her appetite and bowel movements were normal. At 8 a. m. on the day of admission, she was found by her parents unconscious and foaming at the mouth. The patient had no temperature and no traumatic history. In the hospital receiving room, she had tonic and clonic contractions.

Past history was negative except for chicken pox at the age of one year. She was a well developed, well nourished, colored female, who did not appear acutely ill. No convulsions were seen and an obvious eczematous skin lesion was noted on her cheeks and forehead. It was sharply defined, dry and scaly. The physical examination including eyegrounds was normal except for a palpable liver felt 2 centimeters below the costal margin which was

*From the Pediatric Service of Dr. Alfonse Del Deo, Newark City Hospital. Presented at Dr. H. Martland's clinic at Newark City Hospital, February 28, 1950.

†Newark City Hospital, Intern.

1. Wintrobe, Maxwell M.: *Clinical Hematology,* Lea and Febiger, Philadelphia (1946).
2. Bauer, Julius: Archives of Surgery, 41:1344 (December 1940).
3. Skoog, A. L.: Diseases of the Nervous System, 6:276 (September 1945).
4. Hughes, J. G., Diggs, L. W., and Gillespie, C. E.: Journal of Pediatrics, 17:166 (August 1940).
5. Bauer, Julius: Archives of Surgery, 47:553 (1943).
6. Ordway, T., and Gorha, L. W.: *The Diagnosis and Treatment of Disease of the Blood,* Oxford University Press, London (1937).
7. Trincao, C., and Rolo, L.: Lisboa Medica: Journal Mensal De Medicina E Cirurgia, 19:471 (1942).
8. Almklov, J. R., and Hansen, A. E.: Pediatrics, 3:764 (June 1949).
9. Nelson, W. E., Editor: *Mitchell-Nelson Textbook of Pediatrics,* 4th edition, W. B. Saunders Co., Philadelphia (1947).
10. Bergman, P. S., and Berne, R. M.: Journal of the Mt. Sinai Hospital, 16:175 (October 1949).
11. Walker, D. W., and Murphy, J. P.: Journal of Pediatrics, 19:28 (July 1941).

non-tender and smooth. She had slightly hyperactive patellar and achilles reflexes on the right. There was no nuchal rigidity, no pathologic reflexes and no clonicity.

The impression at this time was a facial eczema of undetermined cause and convulsions, etiology to be determined with possible Sturge-Weber syndrome, tuberous sclerosis or ruptured cerebral vessel aneurysm.

On the day of admission a spinal tap revealed grossly bloody fluid on three separate occasions, with pressure of 140 millimeters of water. Queckenstedt was deferred. Protein was 300 milligrams per 100 cubic centimeters of fluid. It showed xanthochromia after centrifugation.

At 3:30 p. m. on the day of admission, she was seen foaming at the mouth but not convulsing. Reflexes were normal, as were the eyegrounds. The patient was semi-comatose and winced on supra-orbital pressure. Her temperature was normal.

The urine was negative for albumen and sugar. The white cell count was 9600 with 82 per cent polymorphonuclear cells and 18 per cent lymphocytes. Red cells were 3.9 million and hemoglobin was 75 per cent.

At 7 p. m. the patient started to twitch her left upper and lower extremities and the left side of her face with extension of the left upper and lower extremity. The eyes deviated from the midline to the right. Breathing was heavy. A barbiturate was given subcutaneously and repeated in half an hour. A clysis of 5 per cent glucose in water and Ringer's lactate 150 cubic centimeters each was initiated.

At 9:15 p. m. the convulsions were still present and a neurosurgical consultant was called. The impression was a deep lesion of undertermined etiology, possibly encephalitis. Sicklemia was mentioned. Convulsions ceased about midnight.

The next morning the neurosurgical service performed a spinal tap which was grossly bloody with a negative culture.

During the convulsion, her temperature rose to 104 and tapered off to 101. The white cell count was 28,000 with 83 per cent polymorphonuclears. The red cell count was 4.5 million slightly hypochromic and poikilocytic. Hemoglobin was 78 per cent. The morning after the convulsion, red cells were four million with 78 per cent hemoglobin.

The blood sugar was 95, nonprotein nitrogen was 51, blood chlorides were 550 and the Kahn test was negative.

On the third day of admission, a sickling study was ordered. This was reported as 80 per cent immediately and 90 per cent in 24 hours. Impression was then a possible thrombosed vessel which had ruptured giving a subarachnoid hemorrhage with a basic sicklemia.

X-rays of the skull and chest were normal. The urines consistently showed one to two plus albumen with a few pus cells and persisted up to discharge with no complaints or positive findings referable to the kidneys. Specific gravity ranged from 1.018 to 1.030.

On the fifth day after admission, the white cells were 5,600. The red cells were 3.98 million with 81 per cent hemoglobin. The sickling was 80 per cent immediately and 90 per cent in 24 hours with slight aniso, poikilo—and microcytosis.

On the ninth day after admission, a spinal tap was again performed. The fluid was clear until the child started to struggle. Then the fluid became blood-tinged. The protein was 30 with no xanthochromia. The temperature dropped to 100, and by the 14th day it had reached normal. Pulse and respirations were in proportion to the temperature. On the 13th day the sickling was 40 per cent immediately and 95 per cent in 24 hours.

After 23 days of hospitalization, the child was discharged, improved, to the Coit Memorial Babies Hospital Sickle Cell Clinic with the diagnosis of sicklemia with complicating subarachnoid hemorrhage.

This case, reported because of its rarity, further emphasizes the fact that the diagnosis is more likely to be missed because it is not thought of than because it is not known. A good rule is to test for sickling routinely on all Negro patients and to recognize the possibility of this disease without anemia when faced with any clinical picture.

SUMMARY

A case of sicklemia with complicating subarachnoid hemorrhage is presented with a review of the literature on the neurologic manifestations of this disease with or without a concomitant anemia. Stress is placed on the desirability of routine test for sickling on all patients of Negro extraction.

I am indebted to Drs. Rinzler, Mitchell and Szelewa for their aid in preparing the paper and with the case. My thanks to Mrs. Orlando for typing this paper.

117 Fairmount Avenue

NEW DEAN AT POLYCLINIC

Dr. David Nye Barrows, Director of Gynecology and Medical Executive Officer of the New York Polyclinic Medical School and Hospital, Fifth Avenue and 100th Street, New York, has been made Dean of the institution. Dr. Barrows also holds a position as Clinical Professor of Gynecology and Obstetrics at New York University College of Medicine.

RAYNAUD'S DISEASE

SURGICAL TREATMENT: REPORT OF TWO CASES *

Geza Robert Hardy, M.D., New Brunswick, N. J.

Raynaud's disease is a functional disease of the arterioles of the extremities characterized by vasospasm caused by excessive vasoconstrictor tone of central origin. One of the cases herein presented may be classified as typical Raynaud's disease, apparently having no associated pathologic changes in the vessels. The second case may be classed as a Raynaud's syndrome associated with scleroderma.

Over the years many drugs and methods have been tried in the treatment of this disease. In recent years, Priscoline,† methacholine chloride, abstinence from tobacco, and two per cent glyceryl trinitrate in lanolin as an innunction[1] applied to the fingers and toes of patients with relatively mild symptoms have been successful in some patients.

SURGICAL TREATMENT

The therapeutic value of sympathectomy for Raynaud's disease was accidentally discovered by Royle[2] during unsuccessful attempts to treat spastic paralysis. Diagnostic methods for temporarily interrupting sympathetic impulses with procaine came to be known in 1930.

Operations on the sympathetic nervous system must be anatomically complete and sufficiently extensive so that regeneration cannot take place. If even a few intact axons are left, these are capable of liberating a chemical mediator substance which can activate the denervated smooth muscle cells thereby bringing about rapid recurrence of the original disorder. One of the cases presented is an excellent example. When sympathectomy is not radical enough, regenerating axons are likely to bridge the gap in one to nine months.

Cervical Approach: This method of thoracic sympathectomy for the treatment of Raynaud's disease and other allied conditions is inferior to the posterior approach. It does not enable the surgeon to excise the posterior roots of the second and third thoracic nerves well back inside the meninges where the dura will form a barrier against their regeneration.

Posterior Thoracic Approach: This method is simple and permits adequate exposure and resection. In the past, only the inferior cervical and first thoracic (stellate) ganglion had been resected. Results were incomplete because the second (and many times, the third) thoracic ganglia give off grey rami to the brachial plexus. White, Okelberry and Whitelaw[3] showed that resection of the inferior cervical and upper three thoracic ganglia causes degeneration of the post-ganglionic vasoconstrictor fibers to the vascular tree of the upper extremity. Their trophic cells are found in these ganglia. It renders the sensitized vessels extremely responsive to circulating epinephrine and sympathin.

Using this principle, Smithwick[4] suggested a modified form of upper thoracic sympathectomy in which the ganglia containing the post-ganglionic neuron cells to the upper extremity are preserved, whereas the preganglionic fibers (which carry vasoconstrictor impulses from the spinal cord to these more peripheral stations) are cut. Ether endotracheal anesthesia is used with the patient in the face down position. The Adson incision[5] centered over the third rib, five centimeters lateral and parallel to the spinous processes, is made. Four centimeters of the third rib are freed from the surrounding muscle and resected. The underlying pleura is freed from the lateral and anterior surface of the spine. Then, the sympathetic chain (which lies on the bodies of the

* From the Surgical Service of the West Baltimore General Hospital, Baltimore, Maryland.

† Priscoline is the Ciba Pharmaceutical Company's registered trade name for their brand of benzazoline hydrochloride.

1. Lund, Fredrik: Acta med. Scandinav. suppl. 206, 196 to 206 (1948); and Fox, M. J., and Leslie, C. L.: Wisconsin M. J., 47:855 (Sept. 1948); and Kleckner, Jr., M. S., Allen, Edgar V., and Wakim, K. G.: Proceedings of the Staff Meetings of the Mayo Clinic, 25:657 (November 22, 1950).
2. Royle, N. D.: Surgery, Gynecology and Obstetrics, 39:701 (1924).
3. White, J. C., Okelberry, A. M., and Whitelaw, G. P.: Arch. Neurol. and Psychiat., 36:1251 (1936).
4. Smithwick, R. H.: Annals of Surgery, 104:339 (1936).
5. Adson, A. W.: Amer. Jour. Surg., 11:227 (1931).

vertebrae) is identified. The sympathetic trunk is divided below its third thoracic ganglion and the rami to the second and third intercostal nerves are cut. The posterior roots (which have been drawn out of the intervertebral foramina by traction on the second and third intercostal nerves) are then cut central to their sensory ganglia along with the anterior roots. Three centimeters of the second and third intercostal nerve trunks are excised. The free proximal end of the sympathetic trunk is then buried in the intercostal muscle as far away from the central stump as possible. The incision is then closed. A similar procedure may be carried out on the opposite side at the same operation.

CASE ONE

For 8 to 10 years this 45 year old woman had been troubled with increasing coldness and pain in her fingers. Medical treatment had been vigorous but ineffective. In the past two years she had had to wear heavy gloves, except during July and August, to keep her fingers warm and from turning "black" and causing her much discomfort. She had worked as a candy dipper for many years. In 1949, an air-conditioning unit was installed in the candy factory. This incapacitated her completely on account of her Raynaud's disease.

Family history and past history otherwise were non-contributory.

She was a moderately "nervous", middle-aged, thin female with cold and pale hands and fingers. All vascular pulsations were normal. On exposure to cold the fingers became white, then dark blue and painful. On warming, the fingers became dark red and gradually returned to "normal".

On January 8, 1950, a right dorsal sympathectomy was done, as above described. Eight days later, the operation was repeated on the left side. During the next few months, she complained of left shoulder pain and reported that the fingers of her left hand did not feel as warm and "normal" as the ones on the right. She said they even became cold at times. X-ray of the chest revealed that the fourth rib on the left had been resected instead of the third. As a result, the sympathectomy on this side was inadequate. Exploration and additional resection of the second intercostal nerve and rami completely relieved the patient of her symptoms. She has been completely well ever since and has resumed her work.

CASE TWO

A 50 year old woman had been previously hospitalized and after several biopsies, a diagnosis of dermatomyositis with involvement of the esophagus was made. For six months prior to her admission she had been constantly troubled with persistent pain in her fingers, blueness of the fingers in cold weather, and, recently, a small painful ulcer on one finger.

Past history was non-contributory except for the fact that she had had a gradual onset of difficulty in swallowing. She needed periodic esophageal dilatation.

She was a small undernourished, female with dry skin; her face was expressionless. Skin of the arms and hands were taut. There was a small dry ulcer on the tip of the third finger of her left hand. This ulcer was very painful. She continually complained of the pain in her fingers.

A bilateral thoracic sympathectomy was done in February 1950, using the above described technic. She made an excellent recovery and has been completely relieved of her symptoms ever since. The ulcer on her finger healed promptly.

SUMMARY

The general physiologic and surgical principles in the treatment of Raynaud's disease are reviewed. One case of Raynaud's disease with inadequate sympathectomy on the left side was completely relieved of symptoms by a second operation when an adequate sympathectomy was done. A second case, one of Raynaud's syndrome is also presented.

Surgical treatment of well established Raynaud's disease by sympathectomy (preganglionic) remains the method of choice. Although the actual etiology of the disease is not known, the surgical treatment centrally attacks the nervous pathways along which the impulses travel which cause the symptoms of the disease. Thus the approach is central rather than peripheral. Excellent results reported in sympathectomy for lower extremity Raynaud's disease point the way to a rational surgical approach to this disease in the upper extremity. Some of the recurrences or failures may be due to inadequate resection. Variations in tendency to regenerate (which one notices in different patients after similar operations) is most likely related to variations in origin of sympathetic supply from the cord. Because of this, it has been the practice in more recent years to do a more radical thoracic sympathectomy in order to improve further the results of the surgical treatment of Raynaud's disease.

93 Bayard Street

PROCTOLOGIC CONSIDERATIONS IN INTESTINAL BLEEDING*

FRANK S. FORTE, M.D., Newark, N. J.

Bleeding from the intestinal tract readily provokes great alarm. There is nothing new about this problem but its repeated presence and the importance of sound interpretation warrants repetition of its more salient features. From the proctologist's viewpoint, bleeding resolves itself into a three-fold problem. *First,* bleeding that is readily detected through proctosigmoidoscopy. *Second,* bleeding beyond the reach of the scope, the origin of which may be in any portion of the remainder of the colon. *Third,* bleeding arising cephalad to the large bowel.

Following is a helpful classification of *causes* of rectal bleeding:

I. GENERAL CAUSES:
- A—Blood Dyscrasias
  - (1) Anemia
  - (2) Leukemia
  - (3) Thrombocytopenia
- B—Avitaminosis
  - (1) Ariboflavinosis
  - (2) Scurvy
  - (3) Vitamin K deficiency, etc.
- C—Intoxications
  - (1) Chemical
  - (2) Metallic, e. g., lead, mercury, etc.
  - (3) Bacterial and parasitic toxins
  - (4) Jaundice

II. SPECIFIC DISEASES:
- A—Tuberculosis
- B—Syphilis
- C—Nephritis
- D—Amebiasis
- E—Bacillary ulcero-colitis

III. CARDIOVASCULAR CAUSES:
- A—Hypertension
- B—Cardiac decompensation
- C—Chronic passive congestion

IV. INFLAMMATORY CAUSES:
- A—Hemorrhagic gastritis
- B—Hemorrhagic entero-colitis
- C—Hemorrhagic proctitis

V. TRAUMATIC CAUSES:
- A—Highway accidents
- B—Gun shot wounds and stabbing
- C—Spontaneous perforation of bowel, e. g., regional ileitis, typhoid ulcer, etc.
- D—Willful trauma induced by psychotics, catheters and other foreign bodies

VI. DIVERTICULA:
- A—Entero-colic
- B—Meckel's diverticulum

VII. MESENTERIC THROMBOSIS.

VIII. POST RADIATION PROCTITIS.

IX. ENDOMETRIOSIS.

X. ULCERATIONS:
- A—Focal ulcers, stomach or bowel (focal infections)
- B—Peptic ulcers, gastric or duodenal
- C—Specific ulcers: tuberculous, syphilitic, amebic

XI. TUMORS:
- A—Polypi
- B—Carcinomata
- C—Sarcomata
- D—Angiomata

XII. MISCELLANEOUS CAUSES:
- A—Hemorrhoids
- B—Varices, ampulla, sigmoid, rectal, anal
- C—Fissures
- D—Fistulae

XIII. IDIOPATHIC.

The proctologist today must be well informed in the medical concepts of disease as well as technically proficient in proctologic surgery. As a corollary to this, differential diagnosis should be his great forte. Hence, the skillful use of physical examination, x-ray studies and laboratory work combined with the knowledge of the pathogenesis of gastrointestinal bleeding should invariably lead one to the correct explanation for hemorrhage.

The seriousness of this cardinal symptom depends on the volume lost, rate of loss and duration of bleeding. Ordinarily a loss of 350 cubic centimeters of blood into the bowel produces no symptoms; whereas massive loss of blood may be followed by shock. Shock is said to exist when the mechanism for the maintenance of blood volume is no longer active. Shock may appear immediately after a large loss of blood or several hours later when the blood volume suddenly falls without further bleeding.[1]

* Read at the Quadrangular Meeting of the four proctologic societies covering Northeastern U. S. A. on December 9, 1950.

LABORATORY AIDS

In serious bleeding, early tests should include hematocrit and hemoglobin determinations, red cell counts and urea nitrogen of the blood. Immediate blood typing with the assurance of an ample supply of suitable blood is essential.

The count may not reflect accurately the amount of blood loss for 24 hours to 48 hours until blood volume has been restored. Hence, to avoid misinterpretation of a count that may be relatively normal even after severe hemorrhage, it should be taken on successive days.

Prompt attention coupled with present day treatment has substantially reduced the untoward effects of serious bleeding.

CLINICAL SOURCES

1. *Peptic ulcer* is the most common cause of hemorrhage from the upper gastro-intestinal tract. The rectal bleeding may vary from tarry stools to large clots with or without bright red blood. A typical "ulcer history" or other condition in which bowel bleeding is relatively frequent helps in differential diagnosis.

2. *Esophageal varices* associated with cirrhosis rarely if ever occur until the cirrhosis is far advanced. If massive hemorrhage is the result of varices caused by cirrhosis, moderate to marked bromosulfalein retention[2] will be found.

3. *Other causes:* Other important causes of massive hemorrhage from the upper intestinal tract are gastritis and gastric neoplasms.

Uncontrollable hemorrhage with an obscure origin may also arise in the upper gastro-intestinal tract.

A patient fitting into this category was brought into the Newark (N. J.) City Hospital and placed on the rectal service because of bleeding *per ano*. He suddenly developed very massive hemorrhage. Blood replacement and shock therapy were of no avail. Necropsy disclosed an undiagnosed neoplasm of the mediastinum which had ulcerated into the esophagus causing subsequent exsanguination.

TUMORS OF THE SMALL INTESTINE

Tumors of the small intestine are as rare as those of the colon are common. Pedunculated lipomas and adenomas may be found. In relation to bleeding, their importance arises from the fact that adenomas may become malignant and both may cause intussusception. One of the rarest of tumors is the hemangioma, which may involve 4 to 5 inches of intestine. It is not diagnosed clinically and may be the cause of an exsanguinating hemorrhage.

Massive hemorrhage from the right colon while not usual may occur as in the case of a white male, age 53. He was treated by his family physician as a case of "dyspepsia". There was no definite evidence of peptic ulcer. While firing the basement furnace, he collapsed and arrived at St. Michael's Hospital, (Newark, N. J.) in shock from massive loss of blood. Shock therapy proved adequate. Subsequent roentgenograms showed only a neoplasm of the cecum. A successful resection resulted in an apparently well patient to date.

DIVERTICULAR DISEASE OF THE COLON

Rankin and Graham[3] stated that blood in the stool was of little significance in cases of diverticulitis. Hayden,[4] although reporting 28 cases of bleeding out of 140 cases of diverticular disease, said there was no proof the blood came from the involved area. Cave[5] suggested that bleeding is more characteristic of diverticulosis or diverticulitis than of cancer.

The reported incidence of bleeding in diverticular disease of the colon has fluctuated from one to 22 per cent depending on individual circumstances and individual investigators. Some of the reported ratios are:

Bacon[6]: 17 out of 104 or 16 per cent.
Hayden[4]: 28 out of 140 or 20 per cent.
Spriggs[7]: 1 out of 100 or 1 per cent.
Willard[8]: 5 out of 72 or 7 per cent.
Rosser[9]: 4 out 24 or 17 per cent.
Smithwick[10]: 16 per cent.
Ochsner[11]: 5 per cent.
Burger[12]: 22 per cent.

MECKEL'S DIVERTICULUM

In a Meckel's diverticulum, bleeding (usually from ulcer or tumor) may be of any degree from slight oozing to exsanguination. Hemorrhage may begin in childhood and continue intermittently all through life. Meckel's diverticulum should be suspected in any case of obscure intestinal bleeding.

INTUSSUSCEPTION

Swift diagnosis and prompt surgical intervention is a life-saving proceeding in intussusception. Ladd[13] found that blood in the stools was a prominent symptom in 86 per cent of his series of 377 cases of intussusception. Be-

cause remissions are common and because the child seems healthy during those remissions, the diagnosis is too often missed. History of severe abdominal pain, blood in the stools and vomiting calls for careful abdominal palpation. In most cases of intussusception a mass will be palpated somewhere along the course of the colon.

POLYPI

Bleeding from single or multiple polyps within the reach of the scope does not, as a rule, pose too much of a problem, either in diagnosis or treatment. Bleeding polyps beyond the scope (when found with the aid of x-rays) may lead to excision by colotomy or to complete colectomy as in the case of congenital multiple polyposis.

DUPLICATION OF ALIMENTARY TRACT

This should be considered in any child suffering from symptoms of partial obstruction, in whom an abdominal tumor is felt. Duplication of the intestinal tract should be suspected[13] when blood is found in the stool and when the symptoms are less acute than those of intussusception; or when the tumor is larger than that found in Meckel's diverticulum.

ULCERATIVE COLITIS

Before bleeding can be laid to chronic ulcerative colitis, it is essential to eliminate the possibility of amebic dysentery, chronic bacillary dysentery or the acute dysenteries from paratyphoid organisms.

VISCERAL PURPURA

Bleeding from Henoch's purpura may appear before any skin manifestations. Associated with abdominal cramps and pain, it may be mistaken for intussusception and lead to early surgery. There may be however, extensive hemorrhage into the submucosa of the bowel, with violent abdominal pains comparable to those of mesenteric embolism or of intussusception. The active bowel above the hemorrhagic segment may drive itself into the bowel below thus producing (by invagination) an actual intussusception as a complication to what is primarily Henoch's purpura. In this disease, rectal bleeding associated with absolute constipation should suggest this possibility.

THROMBOCYTOPENIC PURPURA

Most serious of the symptomatic purpurae is thrombocytopenic or idiopathic purpura. It may be chronic or recurrent. Intestinal bleeding, while not frequent, may be profuse; and it may be associated with hemorrhages from other mucous membranes. The combination may prove fatal.

RARER CAUSES

Among the rarer conditions associated with rectal bleeding may be mentioned sarcoids, granulomata and tuberculosis.

SUMMARY

1. The cause of bleeding from the intestinal tract is not always easy to determine. In a significant number of cases, even the cause of massive hemorrhage cannot be found.

2. Hemorrhage may arise from many sources such as blood dyscrasias, intoxications, specific diseases, cardiovascular conditions, traumatic factors, and many other causes.

3. Sound medical concepts of disease are of paramount importance to the proctologist, who would understand the pathogenesis of intestinal bleeding.

4. Peptic ulcer is the most common cause of upper gastro-intestinal bleeding. Other sources are esophageal varices, gastritis and gastric neoplasms.

5. Diverticular disease of the colon may be the site of small to massive hemorrhage. Its incidence is variously reported as from 1 to 22 per cent of the cases investigated.

6. Blood per rectum in infants and children poses another problem. Polyps, Meckel's diverticulum, intussusception and blood dyscrasias (such as Henoch's purpura) are but a few of the more frequent causes of hemorrhage.

7. Bleeding from the intestinal tract with its multitude of causes, its frequency of occurence and its problem of interpretation, is truly a cardinal symptom.

Bibliography will appear in author's reprints

318 Roseville Avenue

VITAMIN E THERAPY IN THE TREATMENT OF MYOPATHIES

M. M. Kessler, M.D., North Arlington, N. J.

Vitamin E therapy has been suggested by many authors in the treatment of myopathies. The logic of this was demonstrated by Ant† in 1945. He found that vitamin E (in the form of wheat germ oil) is absorbed through the skin and has an affinity for fibrous connective tissue. This connective tissue, he suggests, protects the muscle tissue against hydrema or edema and swelling. The edema is the result of damage to muscle tissue, probably on a nutritional basis. Vitamin E has been demonstrated to relieve the tenseness and tautness observed in injured muscle.

With this background, a group of patients was treated with a brand of wheat germ oil ointment* and observations as to their progress were made. Treatment consisted of local heat applications for the purpose of increasing focal tissue circulation, and the application of the vitamin E ointment.* Heat was used to hasten absorption of the wheat germ oil. When vitamin E therapy was first undertaken, only those patients were accepted who did not respond to the usual treatment of diathermy and analgesics. Our first patients reported spectacular improvement. This encouraged a systematic study of this form of vitamin E ointment.* Sixty-five patients received this therapy. The group includes twenty-eight cases of fibromyositis, twenty-two of traumatic myositis, five of bursitis, five of arthritis, three of tenosynovitis, and two of sciatica.

TABLE ONE. CASES NOT TREATED BY VITAMIN E OINTMENT

Diagnosis	Number of cases	Av. Number treatments	Av. Number days of limited duty
Fibromyositis	30	7.1	10
Traumatic myositis	45	8.0	12
Acute bursitis	5	8.2	10
Chronic bursitis	5	40.0	p
Acute arthritis	5	8.0	10
Chronic arthritis	5	20.0	p
Tenosynovitis	7	10.1	12
Sciatic neuritis	2	21.0	18

A review of the cases previously treated by the usual conventional method was simultaneously made in an attempt to evaluate the effectiveness of the special vitamin E therapy. In some, it was evident that casual methods of treatment were unsuccessful, and that the ointment* produced the desired results. The analyzed control group revealed prolonged treatment with analgesics and diathermy, and prolonged light duty. One hundred and four cases were reviewed.

TABLE TWO. CASES TREATED WITH VITAMIN E OINTMENT*

Diagnosis	Number of cases	Av. Number treatments	Av. Number days of limited duty
Fibromyositis	28	2.4	3
Traumatic myositis	22	3.3	4
Acute bursitis	3	2.6	4
Chronic bursitis	2	40.0	p
Acute arthritis	3	4.0	4
Chronic arthritis	2	20.0	p
Tenosynovitis	3	4.0	4
Sciatis neuritis	2	14.0	7

p="permanent" assignment to limited duty.

Traumatic myositis yielded the most satisfactory results. Many of the patients had received orthodox treatment for periods varying from one week to one month. The institution of vitamin E therapy was followed consistently by marked improvement by the first or second day. Diathermy apparently increased the speed of absorption of the ointment.* Patients who did not respond promptly to this form of therapy did not respond to continued therapy. This was evident in cases of injury to the semilunar discs of the knee, or cases of traumatic bursitis.

The three cases of tenosynivitis treated by this method were slower to respond. However, by the third day, their symptoms had decreased. The untreated group required nearly dou-

† "Vitamin E in the Treatment of Myopathies"—N. Y. State Journal of Medicine—September 1945—Morris Ant, M.D.

* Supplied as "Myopone" by Drug Products Company, East Orange, N. J.

ble the amount of treatment before improvement was noted.

Vitamin E therapy was also of assistance in cases of acute bursitis. Those acute cases in which there was marked limitation of motion, local warmth, and swelling responded most to even a single application of this ointment. The range of motion was markedly increased within twenty-four hours and the swelling was apparently reduced. These patients had received diathermy and analgesics prior to the institution of vitamin E therapy. Their improvement under this treatment was slight. The change after the ointment was applied was too consistent and too marked to attribute it to the effect of suggestion. Chronic bursitis responded only during the acute phase. Apparently the vitamin E treatment affects the pericapsulitis that goes with the acute inflammation of the bursa.

The twenty-eight cases of myositis and fibromyositis produced as favorable results as the traumatic myopathies reported. Spasm and pain were markedly reduced with this therapy. The number of treatments and the number of days of limited work were about halved.

The groups that were the least affected by vitamin E therapy were cases of arthritis and sciatica. During acute arthritis, if pericapsular inflammation is present, a definite amount of improvement is reported. However, no patient reported complete relief of symptoms. One case of sciatica which had been treated with diathermy, analgesics, and thiamin chloride injections, with only mild relief of pain, responded dramatically. Muscle spasm and point tenderness were abolished. This patient who had been treated for two months prior to the institution of vitamin E therapy was discharged on the tenth day with no symptoms.

We have begun to develop some experience in which oral vitamin E therapy has been combined with topical application. Although the experience is meager, we have noticed that, in cases where it was used, improvement over simple topical application was evident.

These statistics were gathered at a large industrial plant where close observation and accurate follow-up could be maintained. Since the institution of this special vitamin E ointment* therapy, the course of treatment for traumatic myositis has been decreased well below half of the time required, using analgesics and heat therapy. The number of visits to the plant hospital has been considerably decreased. The time necessary for the placement of an employee on a light job has been decreased by one-third. The statistics speak for themselves and point up the efficacy of this form of vitamin E therapy.

SUMMARY

A systematic study was made utilizing a special form of vitamin E ointment* derived from wheat germ oil in the treatment of myopathies. Traumatic myositis and fibromyositis responded impressively to this form of therapy. The industrial implication rests in the ability of this form of therapy to cut down the total number of treatments required, and to reduce the assignment to "light work" that is often necessary in these conditions.

60 Ridge Road

MARK YOUR CALENDAR NOW

Turn to that diary now and mark out May 14, 15 and 16. "Atlantic City; Annual Meeting: The Medical Society of New Jersey" is the phrase to write diagonally across the calendar page.

DRUG DELIRIUM DUE TO PYRIBENZAMINE*

REPORT OF A CASE WITH RECOVERY

Irving L. Sperling, M.D., Newark, N. J.

Toxicity due to the anti-histaminic drugs is infrequent in relation to their widespread use. The simple side-effects are well known and are usually of no serious significance. These include such symptoms as "nervousness", dizziness, nausea, fatigue, confusion, dryness, drowsiness and headache. However, serious side effects are infrequent and rarely fatal. Waldman and Pelmer[1] in a recent report reviewed the previously cited serious toxic effects of anti-histaminics. These included urinary obstruction, "hysteria", hallucinations, fainting spells, granulocytopenia and acute psychosis. Among these was a report by Lott, Krug and Glenn[2] of a case of drug delirium due to Pyribenzamine.* Because of the frequent use of these drugs and the relative infrequency of serious reactions, the following case of marked toxicity associated with Pyribenzamine* is here reported:

A 17 year old white girl was first seen on September 3, at 2 a. m. with complaints of drowsiness and "hallucinations". The past history was noncontributory except for a marked ragweed hypersensitivity since early childhood. This was manifested (among other symptoms) by severe itching of the nose and pharynx. Her symptoms were generally relieved by 50 milligrams of Pyribenzamine.* However, on this night, because of severely disturbing symptoms, she ingested ten tablets (500 milligrams) of Pyribenzamine* at 11 p. m. There was prompt relief of symptoms and drowsiness followed by sleep. At 2 a. m. the patient awoke complaining of seeing and feeling "insects crawling over her body" and of seeing "animals and men jumping about her room". Associated with this, were nausea, dullness, drowsiness and disorientation. Examination revealed no unusual physical or neurologic findings.

She was hospitalized one hour later. By that time, there was increasing lethargy, disorientation, semi-stupor and visual hallucinations. A gastric lavage was performed with good results. She was watched carefully over the next five hours with gradual disappearance of hallucinations and return of consciousness. By 9 a. m. (ten hours after ingesting the drug), her reactions were normal and the only residual findings were those of mild drowsiness and dehydration.

Blood count revealed 11,350 leucocytes with 65 per cent polymorphonuclears, 27 per cent lymphocytes, 6 monocytes and 2 stab cells. Hemoglobin was 86 per cent with 4.47 million red cells. Urea nitrogen was 11 milligrams per cent and the sugar was 100.

She was afebrile with a pulse of 100 to 140 and respirations of 22. Her course was uneventful thereafter and she was discharged several hours later with no residual complaints or neurologic findings.

SUMMARY

A case of marked mental reaction to the ingestion of 500 milligrams of tripelennamine (Pyribenzamine*) is reported. There was complete recovery. This is an unusual finding, since serious reactions to this drug are most infrequent.

32 Johnson Avenue

*Pyribenzamine is the Ciba Pharmaceutical Company's tradename for their brand of tripelennamine. Chemically this is a dimethyl pyridyl ethylene diamine hydrochloride.

1. Waldman, S., and Pelmer, L.: Journal of the American Medical Association, 143:1334 (August 12, 1950).

2. Lott, G. N., Krug, E .S., and Glenn, H. R.: Journal-Lancet, 48:242 (Sept. 1948).

PENICILLIN IN ALLERGIC CHILDREN

Penicillin may be administered safely to allergic children, without fear of sensitivity reactions, according to Drs. S. J. Levin and S. M. Moss of Detroit, in a report read to the American College of Allergists at their 1951 Congress. They found no evidence of penicillin sensitivity in 200 allergic children (most of whom were asthmatics) to whom injections of penicillin were given. They point out that penicillin sensitivity is more common among adults than children.

STATE ACTIVITIES

TRUSTEES' MEETING

MARCH 11, 1951

The following actions were taken at the regular meeting of the Board of Trustees on March 11, 1951, held at the Executive Offices, Trenton:

(1a) The nominal control and direction of the Physician Resources Program is to be maintained by The Medical Society of New Jersey with mailing address at 315 West State Street, Trenton. Actual administration is to be set up in other quarters with another telephone number. Dr. Herrman is granted two months to effect the physical separation of the office.

(1b) Either the president and/or the Chairman of the Board of Trustees is to take steps to obtain reimbursement of monies spent on the Physician Resources program.

(2) The Welfare Committee has proposed:

That The Medical Society of New Jersey cooperate in the "Occupational Vision" conferences and designate the chairman of the Advisory Committee on Conservation of Vision and Hearing as the Society's representative to advise with Rutgers University in regard to the program.

The above recommendation was amended as follows:

That The Medical Society of New Jersey cooperate in the "Occupational Vision" conferences and designate the chairman of the Advisory Committee on Conservation of Vision and Hearing as the Society's representative or an alternate to be appointed by the President to advise with Rutgers University in regard to the program and to attend the Conference.

(3) That the Society's counsel be required to attend meetings of the Board of Trustees upon request when his presence is desired.

(4) In the interest of efficient conduct of the offices of the State Society and to overcome existing difficulties, the use of the facilities of the Headquarters building during the office work week be restricted to Wednesday, and that none but the regular membership of The Medical Society of New Jersey and the regular membership of the Woman's Auxiliary be permitted to use the facilities at any time. In joint meetings in which lay groups are to participate, the meetings are to be held elsewhere. The serving of food at meetings held in the building during the work week is to be limited to the basement floor.

(5) Group Health Insurance, Inc., of New York City requested the cooperation of The Medical Society of New Jersey in obtaining a list of participating physicians in this state. This Organization is not a member of Blue Shield Commission. The Executive Committee felt that the Society could not object to any insurance company circularizing New Jersey physicians but that this does not imply that the Society approves of the insurance company's fee schedule.

(6) Health Education Workshop Speaker —The Program Committee of the Health Education Workshop requested formal clearance for Dr. Dukelow of the A.M.A. to be one of the speakers at the 1951 Workshop.

The Executive Committee instructed that the Program Committee be informed that any speaker representing the A.M.A. is welcome in New Jersey at any time including Dr. Dukelow.

(7) Communication from the Essex County Medical Society regarding the Essex County Blood Bank was considered. The Committee was informed by Dr. Schaaf that since the date of the letter, an amicable agreement had been reached by the organizations concerned, and that he did not believe action was now necessary by The Medical Society.

This item was discussed further by the Board and Dr. Murray submitted supplementary information that other difficulties had developed. The matter is still in the process of discussion and no agreement has yet been reached.

Dr. Schaaf moved that the action of the Executive Committee be approved; that the additional information submitted by Dr. Murray be received and that a Blood Bank Committee be appointed by the President to study all phases of blood bank relationship.

Dr. Crowe appointed the following Blood Bank Committee: Dr. Harrold A. Murray, Chairman, Dr. William G. Herrman, Dr. Elton W. Lance.

(8) TV Round Table Forum—The New Jersey Gastro-enterological Society asked the opinion of the Society on the presentation of round table medical forums to be televised to the profession in the north Jersey area.

Conducting formal medical meetings over the air either by radio or television was disapproved in principle by the Executive Committee. If such programs are prepared for the laity, it is an entirely different matter.

(9) A question was presented about the status of a physician who held active membership to a certain date; then resigned and upon his return to New Jersey applied as a new member. Was this physician to be accepted back into the membership as a new member or as a reinstated member?

The Executive Committee ruled that if the physician resigned his membership when he left the state he then became a new member upon his return rather than a reinstated member.

(10) American Medical Education Fund —A communication from the A.M.E.F. requesting support of each county and state medical society was tabled for further study.

(11) Report of the Advisory Committee on Welfare Services.

That The Medical Society of New Jersey cooperate with the Division of Old Age Assistance to aid in the reduction of the administrative work of the department in providing care for the aged, by developing a plan to allocate the funds necessary for the program.

This recommendation was approved and referred to Medical Service Administration for consideration and development of a plan.

(12) Advisory Committee on Workmen's Compensation. Recommendations adopted:

(a) Disapprove making "consolation" disability awards where neither the records nor the proceedings mentioned basis for neurologic findings or any other unwarranted disabilities.

(b) Oppose making disability awards in fracture cases where there are no objective findings or permanent loss of function.

(c) Oppose making permanent awards until at least six months from the date of injury or the maximum disability has been reached.

(d) That this Society urge the Department of Labor vigorously to prosecute cases in which false statements are made under oath.

(e) General approval of Part 3 in the recommendation of the State Chamber of Commerce: "The Workmen's Compensation Law states that an injury to be compensable must 'arise out of' employment. It is important that claims be carefully examined to assure that this qualification is met. (Unfortunately, of late it would appear that such has not been the case.) Particularly is this true since the advent of the Temporary Disability Benefits Law in New Jersey under which workers are entitled to benefits for injuries not compensable under Workmen's Compensation, Unless this qualification is strictly observed it will result in the Temporary Disability Benefits program's receiving a hidden subsidy."

(13) That an obstetrical consultation be a formal consultation requested by the attending physician and consist of a personal examination of the patient by the consultant; note should be made on the patient's hospital chart of the findings and recommendations of the consultant.

(14) The Board approved the establishment of an advisory committee on Group Practice whose chairman shall become a member of the Medical Practice Committee.

(15) The recommendation of the Welfare Committee on "Industrial physicians and nurses impinging on the private practice of medicine," was tabled for further study.

(16) Advisory Committee on Conservation of Vision and Hearing.

(a) That each county society be advised to establish a committee on conservation of vision and the chairman be made a member of the Committee on Conservation of Vision and Hearing of The Medican Society of New Jersey.

This recommendation was amended and approved as follows:

That each county society be urged to establish a committee on the conservation of vision.

Upon motion, seconded and carried, the following recommendation was approved: "That the school nurse act as a technical aide to the school physician and that she be properly instructed."

(17) The Board approved publication in THE JOURNAL at the earliest possible date of Part II A, of Cancer Program which supplements the previous biopsy program known as Part II.

(18) Subcommittee on Legislation.

A-1—Local Health Units—approved with the request that a physician, if available, be designated as health officer; approved.

The Board approved of a Public Assistance Bill, but disapproved A-17 as written. The following action was taken on other bills:

A-553—Bar Association Bill—approved.
A-331—Special legislation for one person to take Board of Medical Examiners tests—disapproved.
A-174—Abolishing Sanitary Commission — disapproved.
A-355—Vivisection Bill—disapproved.

S-35—Chiropody Bill—disapproved.
A-254—Opticians Bill—approved.*

(19) The nomination by Medical Service Administration of Rudolph C. Schretzmann, M.D., as a member of the Board of Governors of Medical Service Administration of New Jersey was approved. Dr. Schretzmann is to fill the vacancy created by the resignation of Sigurd W. Johnsen, M.D., to serve until the next annual meeting of the Administration and until his successor is elected and qualifies, subject to the approval of the nomination by The Medical Society of New Jersey.

(20) The nomination of Thomas J. White, M.D., of Jersey City by Medical-Surgical Plan of New Jersey as a member of the Board of Trustees of Medical-Surgical Plan was approved. Dr. White is to fill the vacancy created by the resignation of Sigurd W. Johnsen, M.D., to serve until the next annual meeting of the Corporation and until his successor is elected and qualifies, subject to the approval of the nomination by The Medical Society of New Jersey.

(21) The Trustees approved the fee schedule submitted by the New Jersey Society of Clinical Pathologists to amend the Medical Society's contract with Veterans Administration and instructed that a copy of the schedule be sent to the VA with the request that it be included in the 1951-52 contract.

(22) The Trustees instructed the Executive Officer to attend the Atlantic City sessions of the A.M.A. in June 1951.

(23) The letter from the Hudson County Medical Society regarding annual registration legislation was referred to the House of Delegates.

(24) The resignation of Dr. Barclay S. Fuhrmann, as councilor for the third district, was accepted with deep regret. The Trustees instructed the secretary to send a letter to Dr. Fuhrmann expressing the gratitude of the Trustees and the Society for his many services.

(25) Dr. Vincent P. Butler was nominated for reappointment as a member of the Board of Trustees of Hospital Service Plan of New Jersey.

(26) The Trustees directed that an appropriate amendment to give function to the Executive Committee be instituted and offered to the House of Delegates for consideration; the chairman of the Board to appoint the committee.

(27) The Board instructed that copies of the report of the Medical School Commission be sent to county society presidents and *Bulletin* editors at no expense to the Society.

(28) The Trustees instructed that the By-Laws provision for the Scientific Work Committee (Chapter VIII, Section 6) be called to the attention of the Reference Committee on By-Laws with the opinion of the Trustees that the Committee had served its purpose and has no other function and that the By-Law provision should be deleted.

(29) The following committee was appointed to study the New Jersey State Council for the Improvement of School Health Services and to bring recommendations to the Annual Meeting.

Dr. Elton W. Lance, Chairman
Dr. David W. Green, a member of the Board of Trustees
Dr. Samuel Blaugrund, Chairman of Welfare Committee
Dr. Joseph I. Echikson, Chairman of Public Health Subcommittee

HEART DISEASE SYMPOSIUM

The combined Sections on Heart and Chest Diseases are sponsoring a symposium on *Recent Advances in Diagnosis and Treatment of Heart Diseases,* to be presented at the Annual Meeting in Atlantic City. Topics to be discussed are radiologic aspects, electrocardiographic aspects, medical therapy, and surgical therapy. These will be discussed by a panel of distinguished experts. We would like to have questions submitted from the profession. Send all questions to Dr. Norman Reitman, 155 Livingston Avenue, New Brunswick, N. J.

N. Y. MEDICAL COLLEGE APPOINTMENTS

Three New Jersey physicians have been promoted to professorial rank at the New York Medical College (Flower and Fifth Avenue Hospitals) according to a recent announcement. Dr. C. N. Baganz, manager of the VA Hospital at Lyons has been designated Clinical Professor at the N. Y. Medical College. Dr. Paul Weitz and Dr. Arpad Pauncz, also of Lyons, have been named Associate Clinical professors of Psychiatry.

*See page 138 this JOURNAL.

CONGENITAL DEFORMITY REPORTS DELAYED

Many children with visible congenital deformities, born in New Jersey, are being reported to the State Department of Health months or years after birth. Obviously physicians and hospitals are not utilizing in *all* such cases the special blanks for this purpose found in the back of the form book "Blanks for Births and Visible Congenital Deformities". The law requires that this form be filled out and mailed to the New Jersey Crippled Children Commission, 143 East State Street, Trenton.

The Crippled Children Commission points out that its services are more promptly available, and medical care is often more effective, if visible deformities are brought to its attention soon after birth, as required by law.

INSTITUTE ON PREMATURITY

Announcement is made of a double-barreled state institute on prematurity to be held in April in Newark and in Camden. Newark sessions will be on Wednesday afternoons, April 11, 18 and 25, at the Northern New Jersey Academy of Medicine (91 Lincoln Park) at 2 p. m. The south Jersey meetings will be at the county medical society headquarters, 725 Federal Street, Camden, at 2 p. m. on Thursday afternoons, April 12, 19 and 26. Each session will run from 2 to 5 p. m. and all aspects of prematurity will be reviewed. For detailed program, write to the sponsoring agency, the Bureau of Maternal and Child Health, State Department of Health, 143 East State Street, Trenton.

OBITUARIES

DR. FRANK C. HENRY, JR.

Dr. Frank C. Henry, Jr., director of surgery at Perth Amboy General Hospital, died as the result of an automobile accident on March 7, 1951.

Dr. Henry, son of a retired physician, was born in 1896. He was graduated from the Cornell University Medical College in 1921. He served his internship at St. Peter's Hospital, New Brunswick. From 1922 to 1926 he was attending physician at Cornell University Medical College. He was consulting physician of the State Hospital at Marlboro and South Amboy Memorial Hospital, and assistant thoracic surgeon at Roosevelt Hospital, Metuchen. He was a Fellow of the American College of Surgeons.

DR. PETER F. MOTZENBECKER

Dr. Peter F. Motzenbecker of Maplewood, died on February 9, 1951, at the age of 77.

Born in Newark, Dr. Motzenbecker was graduated from New York University Medical School in 1896. He was a general practitioner in Newark 52 years. The last three years he practiced in Maplewood.

Dr. Motzenbecker was a member of the Academy of Medicine of Northern New Jersey and a former treasurer of the Widows and Orphans Fund of the Essex County Medical Society.

DR. WILLIAM J. RUNYAN

Dr. William J. Runyan of Bloomfield, died of a heart attack at his home in Glen Ridge, on March 5, 1951.

Dr. Runyan was born in New Britain, Conn., in 1890, and was graduated in 1915 from Long Island College Hospital. He interned at Newark City Hospital. He was senior attending obstetrician of Montclair Community Hospital and was on the staff of the Crippled Children's Hospital, Newark. He served as superintendent of Essex County Isolation Hospital in Belleville for 21 months after World War I and had been a member of the hospital's medical advisory board.

DR. CHARLES A. SCHNEIDER

Dr. Charles A. Schneider, a Newark physician for more than 50 years, died on February 2, 1951, after a long illness.

Dr. Schneider was born in Germany in 1876 and had lived in Newark since early childhood. In 1896 he was graduated as a pharmacist. He received his medical degree from Baltimore Medical College in 1900. For many years he served as a radium therapist at the Presbyterian Hospital. He was also on the consulting staff of Irvington General Hospital and had courtesy privileges at St. Barnabas and St. Michael's Hospitals.

Medical Surgical Plan of New Jersey

"New Jersey's Blue Shield Plan"

WHY EVERY DOCTOR SHOULD BE A PARTICIPATING PHYSICIAN

Medical-Surgical Plan is the "Doctors' Plan"—the medical profession's own constructive solution to the problem of making available prepaid medical service to people of low and medium incomes. It was organized by The Medical Society of New Jersey.

●

Medical-Surgical Plan is advised and guided by the organized medical profession in New Jersey. More than half its Trustees must be members of The Medical Society of New Jersey, and every Trustee must be approved by the Society before election to the Board.

●

Your Participation in Medical-Surgical Plan is the most vital practical contribution you can make to the preservation of the traditional American plan of medical practice. Blue Shield Plans—of which Medical-Surgical Plan is a pioneer and leader—represent organized medicine's proof that voluntary medical care is the practical solution to the health problem.

●

Your Participation in Medical-Surgical Plan is tangible evidence to your patients and to all the more than half million subscribing members of the Plan, that you are supporting this national effort of your profession to meet the public need for prepaid medical service through voluntary methods.

●

Medical-Surgical Plan by virtue of your participation—*is the only medical insurance plan* in New Jersey that makes available *service* benefits to the *patient,* and direct *cash* benefits to the physician.

●

Medical-Surgical Plan paid in 1950 higher average benefits for medical, surgical and obstetrical services than any other Blue Shield Plan in the United States. Many of these benefits were paid on behalf of subscribers who—except for Medical-Surgical Plan—would have had to be attended by their physicians without payment for their services.

●

Medical-Surgical Plan exists only so long as a majority of the practicing physicians of New Jersey support it as Participating Physicians. In order for Medical-Surgical Plan to continue to expand and to arrive at its maximum potential enrollment, it is desirable that *all* eligible physicians in the State participate.

●

Medical-Surgical Plan was created in 1942, and is guided and sustained today, by the devoted and unremunerated services of many leading members of the profession. It is supported by 4700 New Jersey physicians who have voluntarily signed an agreement with the Plan as Participating Physicians. *Are you doing your share?*

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

The report of the State Commissioner of Health to Governor Alfred E. Driscoll was forwarded on March 15, 1951. It is a comprehensive record of progress achieved by the Department in the last year under the supervision of Dr. Daniel Bergsma, State Health Commissioner.

"All of the six divisions of the Department are now under the administration of a carefully selected and well-qualified division director," the report states.

"We have seen progress in the growth of consultation services given by the Department as we change from a policy of direct services to people to the function of providing consultative public health services to local health agencies.

"Organization of the Central District State Health Office marks the beginning of the final stage of the reorganization of the Department. When these four district offices are in operation, the original plan of June 1948 will be completed. We shall have a State Department of Health with an able central staff and four decentralized field units to provide consultative services to local health agencies.

"In many areas, however," the report continues, "we shall have a motor without a drive shaft, because the local health departments which should provide the direct services to the people do not exist in many places in New Jersey or are grossly inadequate.

"New responsibilities for the protection of the public health have been thrust upon us," the report states. "The survival of our people may depend upon the effectiveness of the planning, training, and preparation which have been going forward during the past months in the combined fields of medical, health, and welfare preparedness for civil defense.

"The Committee on Medical, Health, and Welfare Preparedness of the New Jersey Civil Defense Program is responsible for the state program. The State Commissioner of Health is chairman of this Committee. Comprehensive and intensive are the two words which best describe the work of this Committee. Weeks of intensive effort have been expended in searching, planning, and in specialized training to provide the maximum possible protection to the citizens of New Jersey.

"We have one vital and outstanding encumbrance to our civil defense in public health —the almost total lack of organized local public health services in large areas of New Jersey. Civil defense in public health is little more than paper planning unless there exists in each area local health facilities or services. The dead weight to our progress in this field is the horse-and-buggy era law of 1887 which makes each municipality and township a separate unit of local health administration regardless of population. Assembly Bill No. 1 provides two practical methods by which local municipalities may join together in providing needed local health services through a consolidated local board of health or a county local board of health."

The striking decline in infant mortality in the last twenty years is noted by the report.

"If the infant mortality rate which prevailed only ten years ago had been effective during the past year, infant deaths would have been greater by 1180; and if the rate of twenty years ago had prevailed, 4223 more of our babies would have died. This is a marvelous achievement and a record in which our state may take pride.

"It must be noted, however, that many of our communities lack the public health nursing services and the baby keep-well stations which have contributed to our success in this field. These inequalities of those who have and those who have not arise from the lack of adequate local health departments throughout New Jersey. It is this inequality toward which the proposed Local Health District Act of 1951 is directed by making it permissive for municipalities to join their resources to provide themselves with the local public health services they need."

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D. Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, March 9, 1951, DR. G. RUFFIN STAMPS, presiding. We were honored in having the members of the Pharmaceutical Society of Atlantic County as our guests for the evening, and it was a privilege to have this opportunity to meet with our respected colleagues.

DR. IVOR GRIFFITH, Sc.D., F.R.S.A., President of the Philadelphia College of Pharmacy and Science, was the guest speaker. The topics he discussed were of great human interest to physician and pharmacist alike.

Inasmuch as the occasion was a combined meeting of the two societies, a short business meeting was held prior to the scientific meeting.

Dr. Allman, reporting for the Legislative Committee, urged vigorous action on the part of the Society in opposing the passage of certain bills which would be detrimental to our interests. He stated that attempts to tamper with the Medical Practice Act have been, and are, being made. He made mention specifically of Assembly Bill A-331. He accordingly moved that the society go on record as being strenuously opposed to any change in the present Medical Practice Act, and that we therefore be strongly and unalterably opposed to the passage of Assembly Bill A-331. It was further moved that our Senator and Assemblymen be so notified. The motion was seconded and unanimously carried.

Dr. Aldrich C. Crowe, President of the State Society, an honored guest of the meeting, further condemned the bill as being detrimental legislation and stated that its passage would be opposed at every legislative level.

The following were elected to membership: Associate membership, DR. SAUL STEWART MALLY; Regular membership, DRS. JAMES H. MASON, 4th, PAUL CUTLER, and BERNARD SHUMAN (transfer from the Philadelphia County Medical Society).

Dr. Stamps announced that within a few days, each member will receive a letter and application form from the Hospital Service Plan of New Jersey. For the membership of the Society to be eligible for the group hospitalization plan, 61 per cent enrollment is necessary. The President asked for prompt consideration of the proposal by the interested members.

BURLINGTON COUNTY

Freeman W. Metzer, M.D., Reporter

The March meeting of the *Burlington County Medical Society* was held at Riverton Country Club on March 9, 1951.

The scientific portion of the program consisted of a film entitled "Animated Hematology". This was presented through the courtesy of the Armour Laboratories. It depicted the physiology and pathology of the hemopoietic principle.

FREEHOLDER HENRY S. HAINES of Burlington County discussed a proposal to change the coroner system of the county. In the proposed change a physician would be county physician or medical examiner. The coroner would be elected but would be subordinate to the physician. The present legislation supports this change. A committee consisting of Drs. Bray, Bauer and Vlteri was appointed to study the matter and meet with the Board of Freeholders in order to present a workable plan.

The A-1 Plan for Public Health Services of the State was discussed.

Those members eligible for Emeritus Membership wil be investigated and their names presented at a future meeting.

ESSEX COUNTY

Elizabeth R. Brackett, M.D., Reporter

The February meeting of this Society was held on February 8, 1951, at the Academy of Medicine in Newark with the President, DR. OTTO MATHEKE, SR., presiding.

DR. ISADORE GIVNER, associate clinical professor at New York University and attending ophthalmologist, University and New York City Hospital, gave a most interesting and informative talk on "The Eye Findings in Hyperthyroidism". In spite of this topic being in such a highly specialized field there were many points stressed which would be of significance to the general practitioner as well as the ophthalmologist.

At our meeting held on March 8, our Program Committee arranged a symposium on "Problems in the Surgery of the Biliary Tract". The speakers who were all members of our own Society were:

1. The Acute Gall Bladder—Diagnosis and Treatment, JOHN J. CONNOLLY, M.D., St. Michael's Hospital.
2. Diagnosis and Treatment of Common Duct Calculi, VICTOR B. SEIDLER, M.D., Mountainside Hospital.
3. Diagnosis and Treatment of Obstructive Jaundice, C. A. BELING, M.D., St. Barnabas Hospital.
4. Acute Pancreatitis and Hepatitis Due to Gall Stones, W. D. CRECCA, M.D., Lutheran Hospital.

Moderator: ROYAL A. SCHAAF, M.D., Presbyterian Hospital.

Following the masterly presentation of these assigned topics there were many questions from the audience.

As one observer remarked there seemed to be a division of opinion on several issues which would seem to indicate that hard and fast rules could not

be laid down but that methods and procedures must be adapted to individual cases.

The opinion was divided as to the advisability of early surgery in an acute gall bladder disease, and the best manner of dissection of the gall bladder. The value of using liver tests in the differential diagnosis of obstructive jaundice and intrahepatic damage was emphasized.

Dr. Schaaf, as Moderator, conducted the Symposium in his usual inimitable manner and the evening proved to be a profitable and stimulating one.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

President A. Guy Campo, M.D., welcomed guests and members to the regular meeting of the *Gloucester County Medical Society* held February 15, 1951, at the Woodbury Country Club. County Civil Defense officials, physicians' wives, and other interested persons turned out in large numbers to hear the speaker of the evening, Lt. Col. Laurence P. Devlin, M.C., of the Philadelphia Civil Defense Council. Colonel Devlin presented a most interesting and timely discussion of "The Effects of Atomic Warfare", illustrated with a sound film.

At the business meeting, a representative was present from the Hospital Service Plan of New Jersey. The members voted to endeavor to enroll the necessary 70 per cent of the physicians needed for group participation. This Blue Cross plan is one of the oldest, most liberal, and actually cheapest plans in existence. All members are urged to cooperate.

Dr. Ralph L. Moore was appointed to the Committee for the Conservation of Sight and Hearing.

Dr. Robert E. Booth of Woodbury was elected to full membership in the society.

HUDSON COUNTY

Harry Perlberg, M.D., Reporter

With Dr. Meyerson presiding, the regular monthly meeting of the *Hudson County Medical Society* was held at Murdoch Hall, Jersey City Medical Center, on March 6, 1951.

Dr. Donnelly read the complete text of a report which was submitted by the Executive Committee to the Board of Freeholders of Hudson County at a joint meeting held at the Office of the Secretary on March 5. The report, Dr. Donnelly explained, was prepared by the Executive Committee at the request of the Board of Freeholders, and was based upon a "survey of the administrators, the staff, and the clinic physicians of the B. S. Pollak Hospital". On behalf of the Postgraduate Medical Education Committee, Dr. Ginsberg expressed regret in having to withdraw one of the two proposed postgraduate courses—General Pathology—as the material to be presented during the course is incomplete at this time. Dr. Ginsberg suggested that those who had planned to take the course in General Pathology now register for Hematology instead, in the class to be conducted by Dr. Nathan Rosenthal, Consulting Hematologist at Mt. Sinai Hospital, New York, at Saint Peter's College, beginning on Tuesday, April 3, 1951, from 3 to 5 p. m. This course will consist of ten weekly sessions, at a fee of $70.00. Dr. Ruoff thanked the members of the Committee on Constitution and By-Laws and the members of the Executive Committee for their assistance and cooperation in preparing the revised edition of the Society's Constitution and By-Laws. The Committee was authorized to proceed with a printing of the revised edition and subsequent distribution of the same.

Dr. Evans, Chairman, read the report on nominations for the year 1951-52. A full slate for various committees and delegates was also presented. Dr. Gleeson, Chairman, 1951 Dinner Committee, announced that several innovations are under consideration for this year's Dinner, and an exceptionally good time is promised to all who attend. The date is April 7, 1951; the place, Masonic Club of Jersey City.

Dr. Peter Beaugard of Jersey City was elected to membership.

Dr. Robert S. Hotchkiss, professor and chairman, Department of Urology, New York University Postgraduate Medical School, spoke on "Sterility in the Male".

MIDDLESEX COUNTY

F. L. Paret, M.D., Reporter

Under the chairmanship of Dr. Marshall Smith, the president, the *Middlesex County Medical Society* held its regular monthly meeting on February 21, 1951, at the Roosevelt Hospital, Metuchen.

Drs. William G. Kuhn, New Brunswick, Bernard J. Miller, Highland Park and Kenneth W. Jones, now with the Armed Forces, were elected to Regular membership from Associate membership. Dr. Michael Krazcyk was elected to Regular membership on transfer from the Camden County Medical Society. Dr. Stephen Jonap of South Amboy, was elected to a two-year period of Associate membership. Dr. Charles I. Silk, retired, of Perth Amboy was elected to Honorary membership.

Letters from the State Medical Society were read, urging the establishment of Compensation and Judicial Committees. Since their function is now embodied in the Medical Ethics Committee, it was proposed and approved by the members to so advise the State Society.

A motion was made, seconded and passed to inform the hospitals concerned that the Middlesex County Medical Society condemned the use of the undue pressure and coercive methods to solicit funds from its staff members.

Dr. Martha F. Leonard reporting for the Committee on Blood, for Civil Defense, received the approval from the members to proceed with a program to: (1) Stock pile saline, blood and blood substitutes at existing hospital banks eliminating any intention of establishing a central blood bank for the area. (2) Train substitutes from the local colleges, as well as volunteers from industries and technical personnel to draw, type and give blood. Funds for this purpose to be donated by interested organizations and industries.

A motion was also passed to create a committee, to be designated by the president, for standardizing

emergency action and treatment, and supplies and equipment to be stock-piled in Middlesex County.

Because of the possible future young veterans have in the present world situation, a motion by Stanley A. Gadek, M.D., was moved and passed, to appoint two more members, veterans of the last war, to the Physicians Resources Committee. Drs. I. J. Fine and Malcolm Dunham were subsequently nominated and elected.

The speaker of the evening, DR. ROBERT J. NEVILLE, director of Orthopedic Services for the National Foundation for Infantile Paralysis, Inc., emphasized: (1) The increasing incidence of polio; 1949 being the peak year. (2) The changing pattern of the disease, particularly in its tendency to attack older age groups. (3) The need for teamwork among the specialties to provide the best opportunity for the full recovery of the patient; 50 per cent of diagnosed cases recovering without residuum.

MR. GEORGE N. BARRIE, JR., State Representative for the National Foundation, following Dr. Neville, recommended three possible means of bettering the already existing facilities in Middlesex County for the care of the polio-patient: (1) A qualified general hospital in Middlesex County to assume the full polio-program, both acute and convalescent. (2) A qualified general hospital in Middlesex County to assume the acute care program; convalescent hospitalization to be obtained in such institutions as Children's County Home and Trenton Orthopaedic Hospital. (3) Acute and convalescent care program to be obtained in hospitals outside of Middlesex County.

After the discussion which followed, Dr. Martha F. Leonard made a motion, which was seconded and approved, that the president appoint a committee to investigate the present Polio Center and the recommendations of the National Foundation and to render a report to the Society at the March meeting.

MORRIS COUNTY

Theodore R. Failmezger, M.D., Reporter

The February meeting of the *Morris County Medical Society* was held at the Chilcott Laboratories on February 15, 1951.

We were fortunate at this meeting in being able to have a panel of four speakers who discussed the common problems of dermatology. Our old friend, DR. BART JAMES of Newark, formerly on the staff of The Morristown Memorial Hospital discussed "Industrial Dermatoses". This was followed by DRS. C. C. CARPENTER and SAM ATKINSON, both members practicing in our area, who discussed "Dermatitis and Dermatosis". The program was then continued and terminated by DR. ROBERT CHABOT, Allergist, from New York University and Roosevelt Hospital, who spoke on "Atopic Eczema".

At the close of the meeting refreshments were served by our generous hosts, the Chilcott Laboratories. We are sure this has added greatly to our interesting professional discussions.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on February 20, 1951, at the Woman's Club, Paterson. DR. SANDOR A. LEVINSOHN, Vice-President, presided in the absence of the President, Dr. John E. Leach.

Dr. Levinsohn reported to the membership that a minimum of repairs and decorating would be done on the Medical Society Building in order that the office and other agencies may take occupancy as soon as possible. This action was taken by the Board of Trustees of the Building due to the fact that some materials are not available for the complete alterations and because the total number of assessments have not as yet been received.

FRANK H. BURCHELL, M.D., Paterson, and JOSEPH F. KENNEDY, M.D., Clifton, were elected to Active membership.

Dr. Harold S. Auerhan introduced the speaker of the scientific session, SEYMOUR F. WILHELM, M.D., attending surgeon, Urology, Beth Israel Hospital, New York. Dr. Wilhelm's talk was on the subject of pseudohermaphroditism and was illustrated with lantern slides.

SALEM COUNTY

John S. Madara, M.D., Reporter

On February 16, 1951, the regular monthly meeting of the *Salem County Medical Society* was held at the DuPont-Pennsgrove Club. DR. AUGUST JONAS, president, presided.

Dr. Harry Suter requested that all the members of the society make a special effort to attend the Forum on the Local Health Bill in Woodstown on February 28. It was also announced that the 1950 dues for the American Medical Association must be paid before the 1951 dues in order that a physician remain a member of the Association.

Dr. Isadore Lipkin of Pennsgrove introduced the speaker of the day, DR. GEORGE H. GARRISON of Wilmington, Delaware, who gave a very practical and thorough talk on *Recent Advances in Obstetrics and Gynecology.*

WARREN COUNTY

Lewis Genninger, M.D., Reporter

The regular meeting of the *Warren County Medical Society* was held on February 20, 1951, in the dining room of the Warren Hospital. Present were: Drs. Potter, Bloom, Kassow, Bertland, Krausz, Baldauf, Genninger, Cooper, Spillane, Bartolini, Hampton and Humbert.

A letter from the State Society was read regarding the appointment of a compensation committee. The president appointed the following committee: Dr. Humbert, Dr. Bloom and Dr. Varney.

It was suggested that a letter be written by the Secretary to the State Society asking for clarification of dues and whether or not the failure to pay the A.M.A. dues would jeopardize the standing of a physician in the County and State Societies.

Upon motion Dr. F. A. Shimer was made an Emeritus Member.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

MRS. R. JOHN COTTONE

This year we are looking forward, with special anticipation, to two really happy events in our favorite convention spot, Atlantic City. May 14, 15 and 16 will bring us together for another busy and interesting annual meeting of our state organization. A time when we will summarize our work for the past year and plan our future work. This we hope to do smoothly so that projects now working well need have no interruption and we may have good continuity in all our programs.

A very special honor will be ours this year when we pay tribute to our Fellows of The Medical Society of New Jersey and their wives as guests at the banquet honoring Dr. and Mrs. Crowe.

Again—June 11 to 15 the New Jersey Auxiliary will have a most cordial welcome for the twenty-eighth Annual Convention of the Woman's Auxiliary to the American Medical Association. Here is responsibility as well as pleasure for each and every member. Let us plan now to attend both meetings with the desire not to miss a single session of business or feature of pleasure from the informal "Tea" the first day to the lovely banquet on the last day.

EXECUTIVE BOARD MEETING

MRS. GEORGE W. IRMISCH, Chairman, Publicity

At the March meeting of the Woman's Auxiliary to The Medical Society of New Jersey, members had the opportunity to meet the Society's new Executive Officer, Mr. Richard I. Nevin. Mr. Nevin greeted the doctors' wives and commended their services to their husbands as well as to the community.

At the luncheon it was a pleasure to welcome Mrs. Harry F. Pohlman of New York State back to her native New Jersey. Mrs. Pohlman, Program Chairman for the Auxiliary to the American Medical Association told of some of the activities of the national association. One hundred seventy-nine medical films have been cleared for use on television as well as records of talks on medical topics available for auxiliary use. Mrs. Pohlman discussed some of the legislation pertaining to medicine which is before the Senate. She explained the New York State Auxiliary program for civilian defense, and emphasized the importance of the recent White House Conference on Child Health. Her talk ended in a humorous vein with the reading of a poem about the income tax.

AUXILIARY REPORT

Atlantic County

Mrs. Samuel L. Winn,
Press and Publicity Chairman

The *Woman's Auxiliary to the Medical Society of Atlantic County* held its monthly meeting on March 9, 1951, at Hotel Traymore, Mrs. Clarence Whims, President, presiding.

Mrs. Whims introduced the speaker of the evening, Dr. David B. Allman, whose topic was "The Medical Phase of the Atomic Bomb".

A dialogue was presented by Mrs. G. Ruffin Stamps and Mrs. Peter Marvel, using the atomic bomb attack as their theme. This was very enlightening and gave a great deal of information in an interesting manner.

Mrs. David B. Allman, General Chairman of the National Auxiliary spoke on the active part our Auxiliary will take during the A.M.A. Convention to be held in Atlantic City in June.

Mrs. Harry Subin, Chairman of the State Con-

vention of the State Auxiliary to be held in Atlantic City, May 14 to 16, read the program of events and extended an invitation to all members to attend the open meetings and informal tea.

It was voted that books be presented to the Atlantic City Hospital in memory of Doctors William O. Roop, Stanley McGeehan, and Boyd M. Lawther.

Mrs. Louis Rosenberg, Chairman of the Nominating Committee read the slate for the coming year.

Following the meeting the members and guests were invited to join the men in their meeting room where a lusclous buffet supper was served and a social hour enjoyed.

Essex County
Mrs. Stuart Zeh Hawkes,
Chairman, Press and Publicity

Mrs. Jesse T. Glazier presided over the regular monthly meeting on February 26, 1951, at the Robert Treat Hotel, Newark. Our President had a busy day, for prior to the meeting, she was interviewed on the Coffee Club Hour, WAAT, on the subject of "Safety".

At the meeting Mrs. Glazier reported on the meeting of the Governor's Committee on Local Health, held on January 30, at the Woman's Club in Orange. Bill A1 setting up health districts was discussed.

Mrs. John R. O'Sullivan gave a comprehensive picture of the legislative field and stated that when the 82nd Congress opened 21 health bills were introduced.

A special plea was made in Mrs. Daniel E. Kavanaugh's report. Chairman of the Society for the Relief of Widows and Orphans, Mrs. Kavanaugh reported that Essex County, because of its greater number of physicians, must lead the rest in the membership drive. The desire of the Society is to increase the benefit sent to each physician's widow upon his death from $455 to $500.

Mrs. Pascal Baiocchi, acting as Program Chairman in the absence of Mrs. Jerome Kaufman, introduced Mr. Pierre Fellows of the Newark Health Department. Illustrating his talk with colored slides, Mr. Fellows warned of the common danger spots in the home. He also described the accident prevention campaign being carried on by the Health Department.

Next Mrs. Balocchi introduced Mr. William Pfeiffer, Supervisor of Radio Station WBGO. Mr. Pfeiffer was formerly head of The Voice Department of Westminster Choir at Princeton, and was also baritone soloist for the famed Westminster Choir. Accompanied by his wife, Mr. Pfeiffer sang several songs. Following the program, which was very well received, tea was served.

In April the Auxiliary will once more take their sample drugs, old surgical instruments and other medical supplies to the Academy of Medicine. There they will be gathered together and taken to the Medical Surgical Relief Association in New York. All the supplies will be sent directly to Korea where there is a crying need for them.

Hudson County
Mrs. Charles Sirken

On March 7, 1951, at 1:00 p. m. in Murdock Hall Auditorium, Jersey City Medical Center, the *Woman's Auxiliary to the Hudson County Medical Society* sponsored as a special "Open Health Meeting" a panel discussion on the applications of atomic energy entitled "The Atom and You". Approximately 500 were in the audience. Each speaker, representative of his particular phase of the subject, devoted about thirty minutes to an informal presentation followed by a general discussion and question and answer period.

The program was as follows: Introductory remarks by the moderator, Dr. Harrison Martland; Military Aplications of Atomic Energy, Rear Admiral William Maxwell, U. S. Navy (Retired); Atomic Medicine and Civilian Defense, Arthur D. Zampella, M.D.; Use of the Radioactive Isotopes in Medicine, Rosalyn S. Yalow, Ph. D.; Industrial Applications of Atomic Energy, Dr. Charles Rosenblum; Exhibits and movie on Atomic Energy.

Mrs. John Muccia, President of the Woman's Auxiliary to the Hudson County Medical Society introduced Mrs. R. John Cottone, State Auxiliary President, Mrs. P. Rauschenbach, State Auxillary Public Relations Chairman, and Dr. Noah Meyerson, President of the Hudson County Medical Society.

NATIONAL MEETING

A few more months, and the members of the Woman's Auxiliary to the American Medical Association will be arriving in Atlantic City for their annual convention, June 11 to 14.

Have you made your reservations? If not, send your request *at once* to Dr. Robert A. Bradley, Chairman, A.M.A. Housing Bureau, 16 Central Pier, Atlantic City.

BOOK REVIEWS

An Atlas of Human Anatomy. By Barry J. Anson, Ph.D., Professor of Anatomy, Northwestern University Medical School. Pp. 518. Philadelphia, W. B. Saunders Company, 1950. ($11.50)

This atlas of gross anatomy contains a series of illustrations based upon dissection of the human cadaver. It is intended to satisfy both the medical student and the graduate as a reference book. The illustrations are meticulously done and relationships of regional anatomy are well-shown, especially with regard to the complex structures about the brain and spinal cord, the deep structures of the neck, and the entire upper extremity.

No attempt is made to group the muscles according to their innervation or to give their origins, insertions or functions. The intention of the author is not to present a three-dimensional study of the complete functioning biologic mechanism but rather a pictorial review of the structures demonstrable in regular study of the human cadaver. In this he has succeeded admirably.

ROBERT F. HAGERTY, M.D.

Rorschach Introductory Manual. George Ulanet, M.D. St. Louis 1, Missouri. Educational Publishers. Pp. 45. 1950. ($3.00)

The usefulness of the Rorschach Test is no longer in doubt. It is the swiftest instrument available for getting a picture of a patient's personality structure. Physicians have largely abandoned the test to psychologists, however, because of the fussy details needed to accomplish a good interpretation. In this respect, the position of the psychiatrist is analogous to the status of an internist, who has a technician interpret a liver function test or read a chest film.

Dr. Ulanet has written a meaty manual which will give the physician a down-to-earth ready reference basis for interpreting the Rorschachs he administers. It is, of course, incomplete since push-button answers are no more valid in psychiatry than in any other specialty. However, it does furnish a fast photograph of the subject's personality; and the author is entirely justified in using this as the beginning of the psychiatric approach rather than as an end in itself. The neatest trick of the year is the plastic "writing desk" at the end of the book. This heavy page can be bent back as an underpinning for the doctor's note-paper, and at the same time it gives him a "read as you run" clue to the proper scoring of each answer. On the next to the last page is a diagram showing the significance of various response patterns and their relationship to each other. Holes are punched at appropriate places. The examiner can write in the score in each category by placing a blank sheet under the diagram and writing through the perforations. He then gets a quick view of the way his subject compares to norms. This is the most practical manual of the Rorschach I have ever seen.

WILLIAM S. SCHRAM, M.D.

Personality Development and Assessment. Charles M. Harsh and H. G. Schrickel. New York, The Ronald Press, 1950. Pp. 518.

The first half of this book traces the development of personality in conventional fashion, from an account of heredity, through infancy and childhood, and on to old age. At each level there is discussion of the factors influencing personality, the problems of adjustment, and the major individual variations. This part of the treatise is elementary in content, though sometimes complex in style of presentation. It is geared for the college undergraduate. The second half of the book is more lively. It includes a particularly good review of the divergent theories of personality. This chapter could serve the physician as excellent source material for lectures he may be asked to give on personality adjustment. Otherwise there is little in the volume to interest physicians. The text is focussed essentially on the needs of personnel counselors, clinical psychologists, and college students.

Technics of assessing personality are, apparently, major areas of interest for the authors. Several chapters deal with this and there is much interesting material on rating scales, questionnaires, and other methods of appraisal. There is some mention of methods of personality re-adjustment, but little attention is paid to the actual technics of therapy.

HENRY A. DAVIDSON, M.D.

Sexual Fear. By Edwin W. Hirsch, M.D. Garden City (N.Y.) Publishing Company. Pp. 307. 1950. ($3.00).

"Psychomatic" writes the author, "is the term I have coined to designate my system of correcting the disordered sexual function in which sexual fear is predominant". Here, in brief, is the method. The patient is re-assured that his fears are groundless. Endocrines are administered when indicated. Vaginal hygiene is stressed. "I have" says Dr. Hirsch "by the procedure of advising means whereby the vaginal zone may be kept clean, freed several hundred women of their fear of coitus". Psychic impotence in males is treated by "psychomatic". In one case, for example, the man was "advised to go out only with girls who appealed to him". He also gives us, as he says, a magic formula. "Training the mind, body and sexual organs by frequent repetition of the sexual process is the magic formula for banishing fear and acquiring orgasmic achievement." Inferiority feelings because of small penis and testicles can, says Dr. Hirsch, be dissipated by the following technic: "by stretching exercise several times a day, the length of the organ can be appreciably increased. Continued exercise will show a lengthening within two months, but a year to two years of penile exercise will be necessary to effect a marked improvement."

This is, of course, a layman's manual.

VICTOR HUBERMAN, M.D.

The Prostate Gland. By Herbert R. Kenyon, M.D. (Pp. 184.) New York, Random House, 1950. ($2.95)

The diagnosis and treatment of every aspect of prostate gland disorders are admirably covered in this small book which we can recommend to our patients. It gives the layman an understanding of the management of both medical and surgical diseases. Dr. Kenyon emphasizes the danger of the patient's ending up with the quack and cultist. He stresses the fact that it is up to the surgeon to do the planning and to select the time for surgery as well as the operative procedure.

IRVING MAISEL, M.D.

A Text-book of X-Ray Diagnosis. By British Authors in four volumes. 2d ed. Edited by S. Cochrane Shanks, M.D., and Peter Kerley, M.D. Vol. III; with 694 illustrations. Philadelphia, Saunders, 1950. ($18.00)

The second edition of this excellent text is even better than the first. Volume III is divided into the alimentary tract, the salivary glands, the biliary tract, the abdomen, obstetrics, gynecology, and the urinary tract.

The text is profusely illustrated. Reproductions of the films clearly show the lesions described. The reproductions are the reverse of x-rays as far as densities are concerned, but this is of little practical importance. The text is very clear and the presentation of the material is orderly and as comprehensive as one would expect in a textbook of this type. Anyone interested in a roentgen study of these areas will find the volume a valuable addition to his library.

JULES H. BROMBERG, M.D.

Text-book of X-ray Diagnosis by British Authors. Edited by S. Cochrane Shanks, M.D., and Peter Kerley, M.D. 2d ed.; in 4 volumes. Vol. IV. Pp. 592. Phila., W. B. Saunders Company, 1950. ($15.00)

Volume IV deals with the bones, joints and soft tissues and is part of a standard work on x-ray diagnosis. Subjects are discussed intelligently by eleven contributors in as many parts. Main titles are: Normal bones and joints; general pathology; congenital anomalies; traumatic lesions; inflammatory diseases; static and paralytic lesions; constitutional diseases; tumors and cysts; soft tissue changes; and localization of foreign bodies.

The style is lucid, simple, authoritative and to the point. Each entity is preceded by a brief historical review of the lesion in literature and followed by the pathologic findings. X-ray findings are described in detail and the difficulties in differential diagnosis are well pointed out and correlated with the clinical symptoms. Unimportant details are dispensed with; technical details are added in few instances. There are 255 excellent illustrations demonstrating the lesion discussed. Each part contains a selective bibliography and a thorough index completes the work.

This volume emphasizes the clinical approach to the subject of bone pathology which, in my opinion, is the only one possible. The x-ray appearance must be correlated with the clinical data, biopsies and the follow-up to establish a precise diagnosis. The book should be read by every physician interested in clinical radiology.

RAPHAEL POMERANZ, M.D.

Plastic and Reconstructive Surgery. By Ferris Smith, M.D. Phila., W. B. Saunders Company, 1950. ($15.00)

Ferris Smith's new textbook of plastic surgery is a manual of management for the instruction of residents in plastic surgery or doctors who have had some basic training in the field. It is not a book for the beginner. All aspects of plastic surgery are discussed in orderly sequence and the author has been able to combine a brief review of experimental work leading up to clinical application in an interesting and concise manner.

Throughout the text, Smith emphasizes repeatedly the desirability of local tissues for the repair of deformity as a procedure of choice. He advocates the use of tissues from a locality other than the region of the defect as procedures of necessity, in certain cases, because the local tissues cannot be used. In general, the author believes in the simplification of all plastic operations.

Dr. Smith is one of the really great living plastic surgeons and his book will probably be in the library of every plastic surgeon. It will also serve as a valuable reference for general surgeons with some experience in plastic surgery.

LYNDON A. PEER, M.D.

Thoracic Surgery. By Richard H. Sweet, M.D. Illustrations by Jorge Rodriguez Arroyo, M.D. Pp. 345. Philadelphia, W. B. Saunders Co., 1950. ($10.00)

Dr. Sweet has, in this small volume, presented a much needed, up-to-date surgery of the thorax in a very concise and clear manner. The book fulfills the needs not only of those interested in thoracic surgery but also the needs of those working about the neck and abdomen. The author's critical appraisal of various procedures, his discriminating allotment of space to better established operations, as well as clear descriptions of his own contributions to procedure and technic, greatly enhance the value of the work. The book takes on the character of an indispensable reference, especially when it is remembered that Dr. Sweet is one of the most experienced and pre-eminent authorities in this advancing field of surgery.

The book opens with a practical chapter on the surgical anatomy of the thorax. This includes beautiful anatomic drawings illustrating the relationship of the surgical anatomy with particular clarity. Of equal importance are the following chapters which deal with technical considerations as they particularly pertain to thoracic operations. The discussion of the best thoracic incisions is extremely valuable. The remaining chapters cover specific thoracic operations on a regional basis, in-

cluding surgery of the chest wall, the pleural cavity, the lungs, organs of the mediastinum and the diaphragm. A very practical section is devoted to abdominal operations performed through the thorax.

Operations for congenital disorders of the heart are of particular interest at this time. Of these, Dr. Sweet says: "no operations on the heart itself for the relief of congenital anomalies have yet been devised which can fairly be considered as established procedures". He does, however, describe adequately present operative procedures with appraisal comments. He includes two chapters on operations on the esophagus. The rapid advances in this field have been due in good measure to his extensive experience and, naturally, his treatment of this subject is authoritative.

Henry A. Brodkin, M.D.

Bronchoesophagology. By Chevalier Jackson, M.D., and Chevalier L. Jackson, M.D. Philadelphia, W. B. Saunders Company, 1950. ($12.50)

This is really the fourth edition of the Jacksons' textbook on bronchology and esophagology. However, with the adoption of the term bronchoesophagology in 1938 as a distinct department of medical science, this book is appropriately entitled *Bronchoesophagology* and is the first edition under this name.

The authors have placed their cumulated experience, which is enormous, between the covers of one book and have included all the accepted older and newer developments on the technic of bronchology and esophagology as well as the diseases which fall in its scope.

There is an appendix which illustrates and discusses the use of the instruments. This will help the rank and file of endoscopists in setting up a minimum department in the smaller general hospital. Some of the sections especially commended to the reader are the ones discussing anatomy of the tracheobronchial tree in relation to bronchoscopy and the cytologic examination of secretions obtained by swab methods. The intercostal thoracopuncture for foreign body in the extreme periphery of lung is discussed and may lend itself to differences among endoscopists.

The use of magnets in the extraction of foreign bodies is adequately reviewed, including the use of vertebrated magnets. Unfortunately, we are not told where we can obtain these magnets to our specifications. The Jacksons' usual procedures in treatment of burns of the esophagus are discussed without particular mention of the newer early treatments as used by Walzer and Kernoodle.

The book is of a convenient size, has excellent printing and is very easy to read. The illustrations are up to the usual Jackson excellence. The diagrams used are simple, rational and very practical and leave no confusion in the reader's mind.

Every ENT man or any specialist allied to this field will want this book in his office for ready reference. It should be one of the most thumbed in the otolaryngologist's library for many years to come. The authors have gathered together the latest instruments, equipment and technics used in bronchoesophagology. The division and method of handling the subject in this work reflects the authors' long experience in teaching the subject. Other highly qualified bronchoesophagologists may differ a bit in the technic, methods and treatments outlined, but this difference of opinion will in no way detract from the value of this book. A rather mild criticism would be that the Jacksons do not stress to any great extent procedures, methods and technics which differ from their own.

Henry Z. Goldstein, M.D.

The Genealogy of Gynecology. By James Ricci, M.D. 2nd ed. (Pp. 494) Philadelphia, Blakiston Company, 1950. ($8.50)

For the physician interested in gynecology, this volume will be a rewarding experience. He might chuckle at some of the ideas held in 1000 B.C., but he would have to marvel at the acuity of some of the observations made at the same time. The book is divided into seven parts, starting with prehistoric gynecology, and then reviewing the Ancient Epoch, the Classic Age, the Byzantine Period, the Arabic Era, the Medieval Epoch, and the Transitional Period, which encompasses the 18th century.

Each part has some nugget of information. Consider this, from Pliny: "That if a woman drinks goat's urine, it will stop all fluxes of the blood, be they never so immoderate". Was this statement based on superstition or observation? It is certainly reminiscent of the early days of endocrinology.

And one more bit of information garnered from this volume: the first gynecologic operation in America was a laparotomy for the removal of an intra-abdominal fetus, performed in 1759 by John Bard of New York. The patient survived.

The amount of research performed by the author of this book is evidenced by the footnotes and bibliography following each chapter. There is also an index of personal names. As history in its own right, and as a source book for further research, this volume deserves a place in the library of every gynecologist.

Philip Grossblatt, M.D.

Differential Diagnosis of Internal Diseases. By Julius Bauer, M.D. Pp. 866. New York, Grune & Stratton, 1950. ($12.00)

This is a concise presentation of differential diagnosis. It is divided into two parts. The first deals with *leading symptoms*, such as headache, backache, thoracic and abdominal pain, and hemorrhages. The causes for these symptoms are listed and briefly discussed. The second part deals with *leading signs* presented according to the system involved.

It is surprising that so much valuable information could be massed into one volume. It is an excellent reference book for internists and general practitioners alike. The bibliography is extensive and complete.

David J. Lehman, Jr., M.D.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV April, 1951 No. 4

DROP IN TUBERCULOSIS DEATHS AMONG YOUNG PEOPLE CALLS FOR INCREASED EMPHASIS ON OLDER AGE GROUPS

Mary Dempsey, Statistician, National Tuberculosis Association, The NTA Bulletin, October, 1950.

The control of a disease like the waging of a war depends for success upon knowledge of the enemy, where he is to be found and in what numbers. This knowledge about tuberculosis is to be found in an analysis of the death rates from the disease. Tuberculosis control programs which ignore the implications of the changing character of tuberculosis mortality are missing the golden opportunity now at hand to eradicate the disease.

During 1948, the actual number of deaths from tuberculosis in the United States was 43,833, a decrease of 8.8 per cent when compared with 1947. These final figures compiled by the National Office of Vital Statistics in Washington are published in Public Health Reports for April 7, 1950.

When age groups are considered, however, the decline in the number of deaths is extremely uneven. For example, tuberculosis deaths among young persons 15 to 24 dropped 26.2 per cent between 1947 and 1948, while among elderly persons 65 years of age and over there was an actual increase of 0.5 per cent (one-half of one per cent).

During the past decade the decline in the number of tuberculosis deaths among those 15 to 24 was by no means comparable with the drop between 1947 and 1948. The almost steady increase in the percentage of decline in the deaths among those in this age group appears in the following table.

Table 1

Percentage decline from one year to the next in the number of tuberculosis deaths among persons 15 to 24 years of age: United States, 1939-1948

Years	Percentage decline in the number of tuberculos s deaths among persons 15 to 24 years of age
1947-1948	26.2
1946-1947	12.1
1945-1946	10.4
1944-1945	7.7
1943-1944	7.7
1942-1943	4.5
1941-1942	5.6
1940-1941	3.5
1939-1940	2.8

The probable explanation of this extraordinary drop in the 15 to 24 year age group is that in this country young people of today are exposed to much less tuberculous infection than was the case a few decades ago. It is likewise probable that most young people have increased resistance. A third theory might be that those in the younger adult groups have become somewhat health conscious as the result of long-continued health education programs. Yet it is difficult to account for such a pronounced difference in very recent years. During the five-year period, from 1937 to 1942, tuberculosis deaths in this one age group (15 to 24 years) dropped 24.9 per cent, less than the percentage decline in one year between 1947 and 1948.

Analysis of the number of tuberculosis deaths in each age group between 1947 and 1948 presents more complete information on this subject.

Table 2

Percentage increase or decrease in actual number of tuberculosis deaths, classified by age group: United States, 1947 and 1948

Age group	Deaths from tuberculosis		
	1948	1947	Percentage increase or decrease 1947-1948
All ages	43,833	48,064	— 8.8
Under 15 years	1,636	1,698	— 3.7
15-24 years	3,933	5,332	—26.2
25-34 years	6,591	7,697	—14.4
35-44 years	7,573	8,314	— 8.9
45-54 years	8,165	8,865	— 7.9
55-64 years	7,737	7,999	— 3.3
65 years and over	8,168	8,130	+ 0.5
Age unknown	30	29	+ 3.4

Surprisingly enough, deaths among children under 15 years of age dropped very little, though the numbers involved are small. Beginning with the group 15 to 24 years old, the decline is very pronounced and becomes less so with each succeeding age group. Few complications point out so strongly the increasing concentration of tuberculosis deaths among older people.

Another comparison of interest has to do with the decline in the actual number of deaths according to sex. In spite of the fact that deaths among males are nearly twice as numerous as among females, deaths among the former are nevertheless declining at a much slower rate. This statement is true whether one considers white people only or non-whites (See Table 3).

These findings conform to the long-held impression that tuberculosis becomes increasingly a disease of men and particularly of older men.

Careful study of these mortality data points first to outstanding achievements of the many agencies (both official and voluntary) which have for so long waged war against tuberculosis, and second to those areas of activity in which success has been much less marked. It is evident that more concentrated efforts must be directed toward control and ultimate eradication of the disease among men, among older people, and among non-white people if the total program is to continue to be as successful as it has been in the past.

Table 3

Percentage decrease in actual number of tuberculosis deaths, classified by sex and color: United States, 1947 and 1948

Sex and color	Deaths from tuberculosis		
	1948	1947	Percentage decrease 1947-1948
Total	43,833	48,064	8.8
Male	28,552	30,585	6.6
Female	15,281	17,479	12.6
White	31,750	34,783	8.7
Male	21,616	23,167	6.7
Female	10,134	11,616	12.8
Non-white	12,083	13,281	9.0
Male	6,936	7,418	6.5
Female	5,147	5,863	12.2

Table 4

Percentage decrease in actual number of tuberculosis deaths, classified by form of disease; United States, 1947 and 1948

Form of disease	Deaths from tuberculosis		
	1948	1947	Percentage decrease 1947-1948
All forms	43,833	48,064	8.8
Pulmonary	40,420	44,462	9.1
Other forms	3,413	3,602	5.2

Inasmuch as the actual number of deaths is used in each instance—and not death rates—it is obvious that the great increase in the country's population has not been taken into consideration. Inclusion of this factor would serve to accentuate rather than to minimize the declines noted.

CHANGE OF ADDRESS

In the event of a change of address or failure to receive The Journal regularly fill out this coupon and mail at once to

THE MEDICAL SOCIETY OF NEW JERSEY, 315 W. State St., Trenton 8, N. J.

Change my address on mailing list

From.....

To.....

Date..... *Signed*..... *M.D.*

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET

SITUATIONS, ETC.

$3.00 for 25 words or less: additional words 5c each

CASH MUST ACCOMPANY ORDER

Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY

790 Broad Street, cor. Market

Newark 2, New Jersey MItchell 2-1940—1941

Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

PSYCHIATRIST — PSYCHO-ANALYST, practicing in Bergen County, wishes two days' work in clinic, hospital or assistantship. Qualifications—references furnished. Write Box B, c/o THE JOURNAL.

FOR RENT—Office suite, furnished or unfurnished; established 100% location drawing resort and year round practice. Would also consider sale of entire property including attractive living quarters. Mrs. Maxwell Colby, 133 Chelsea Ave., Long Branch, N. J. L. B. 6-0660.

FOR SALE OR RENT—Long active physician would help physician or dentist draft exempt, modern offices adjoining his. General work, specialties, center large population New Jersey. Write Box 5, c/o THE JOURNAL.

FOR RENT—The office of Dr. Charles A. Schneider, deceased, consisting of 2 or 3 rooms and lavatory. Private entrance. Good location of 40 years' standing. On three bus lines. 694 Clinton Ave., Newark, N. J. Telephone ESsex 3-4823.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

DOCTOR'S HOME FOR RENT—10 room house including suite of offices and treatment rooms on first floor. Centrally located on Broad St., Newark. Suitable for group. Call MArket 2-7987.

— ATTENTION —

DOCTORS AND NURSES

Suitable for convalescing or nursing home. To settle estate, owner will sell at sacrifice large modern home, perfect condition, oil heat, beautifully landscaped, 2 car garage, near beach in Atlantic County. Can be financed.

For appointment to inspect write to:

P. O. Box 684

Atlantic City, N. J.

Relationship of Stress to Autonomic Lability

Studies in psychosomatics have shown that functional disorders often are a result of the patient's inability to adjust to emotionally stressful situations (stressor factors).

Nervous tension and chronic anxiety, discharged through a labile Autonomic Nervous System, can cause somatic disturbance. [1,2] Such states may involve any one of the organ systems or several at one time. [1,3] The outline below is designed to relate gastrointestinal and cardiovascular symptomatology to the exaggerated response of the autonomic nervous system.

	Physiologic Effects of Autonomic Discharge	
	Sympathetic	Parasympathetic
Gastro-intestinal System	Hypomotility Intestinal Atony Hyposecretion Reduced salivation	Hypermotility Gastrointestinal spasm Hypersecretion
Cardio-vascular System	Rapid heart rate Peripheral vaso-constriction	Slow heart rate Vasodilatation
Functional Manifesta-tions	Palpitation Tachycardia Elevated blood pressure Dry mouth and throat	Heartburn Nausea-vomiting Low blood pressure Colonic spasm

The data here tabulated is from references [3,4,5,6,7] given below.

When the clinical picture is suggestive of functional disorder, the diagnosis is supported by the presence of the following indications of autonomic lability:

Variable Blood Pressure
Body Temperature Variations
Changing pulse rate
Deviations in B. M. R.
Exaggerated Cold Pressure Reflex
Oculo-Cardiac Reflex Abnormalities
Glucose Tolerance Alterations

Therapy in these cases is directed toward: 1) relieving the somatic disturbance to prepare the patient for psychotherapy*; 2) guidance in making adjustment to stressful situations and correction of unhealthy attitudes.

*Drug treatment using adrenergic and cholinergic blocking agents in conjunction with sedatives. [8,9,10]

1. Ebaugh, F.: Postgrad. Med. *4:* 208, 1948. 2. Wilbur, D.: J.A.M.A. *141:* 1199, 1949. 3. Williams, E. and Carmichael, C.: J. Nat'l. Med. Assoc. *42:* 32, 1950. 4. Goodman, L. and Gilman, A.: The Pharmacological Basis of Therapeutics, The Macmillan Co., 1941. 5. Katz, L. et al: Ann. Int. Med. *27:* 261, 1947. 6. Weiss, E. et al: Am. J. Psychiat. *107:* 264, 1950. 7. Alvarez, W.: Chicago Med. Soc. Bulletin, 581, 1950. 8. Rakoff, A.: A Course in Practical Therapeutics, Williams and Wilkins, 1948. 9. Karnosh, L. and Zucker, E.: A Handbook of Psychiatry. C. V. Mosby Co., 1945. 10. Harris, L.: Canad. M.A.J. *58:* 251, 1948.

INFORMATION FOR CONTRIBUTORS

MANUSCRIPTS submitted to this **Journal** should be typewritten, and double-spaced between the lines.

CARBON COPIES should be retained by the author; only original copies should be offered for publication.

THE RIGHT to reject, edit or abbreviate any manuscript is expressly reserved by the Publication Committee.

ILLUSTRATIONS submitted by the author in connection with his manuscript will be prepared in the form of dies suitable for printing, and the cost of such cuts will be charged to the author. An estimate of the probable cost will be given when the illustrations are submitted.

THE OFFERING of any manuscript to this **Journal** carries with it the implication that it is not being offered to any other publication.

ADDRESS all queries, manuscripts and correspondence to

The Journal of The Medical Society of New Jersey

315 West State Street Trenton 8, N. J.

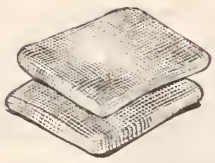
for the gap between...

OXYCEL

(OXIDIZED CELLULOSE)

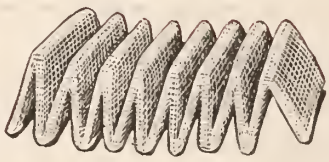
Package Information:

Supplied in individual glass containers in the following convenient forms:



OXYCEL PADS:

Sterile, gauze-type, 3 inch x 3 inch eight-ply pads, and 4 inch x 12 inch eight-ply pads.

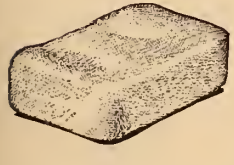


OXYCEL STRIPS:

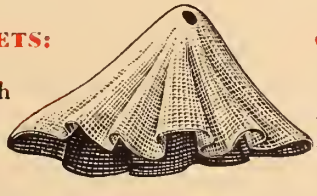
Sterile, four-ply gauze-type strips 18 inch x 2 inch; four-ply, 5 inch x ½ inch; and four-ply 36 inch x ½ inch, pleated in accordion fashion.

PARKE, DAVIS & COMPANY

In the control of bleeding between arterial and venous systems, where vessel size precludes the use of hemostat and suture, OXYCEL—absorbable hemostatic—provides prompt control of capillary bleeding. Trauma is minimized, operative procedures shortened, and post-operative hemorrhage notably curtailed. OXYCEL is practical and convenient, too... applied direct from the container, it conforms readily to all wound surfaces.



OXYCEL PLEDGETS:
Sterile, cotton-type
2¼ inch x 1 inch x 1 inch
portions.



OXYCEL FOLEY CONES:
Sterile, four-ply, gauze-type discs,
5 inch and 7 inch diameters,
conveniently folded
in radially fluted form.

MEDICAMENTA VERA

P & CO.

Adequate added carbohydrate

$C_6H_{12}O_6$

$C_{12}H_{22}O_{11}$

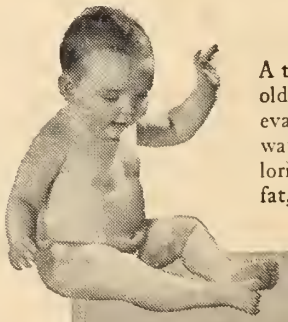
$(C_6H_{10}O_5)x$

A necessity for a well balanced infant formula

Added carbohydrate plays an essential role in the infant formula. In adequate amounts, carbohydrate:

1. Permits normal metabolism of fat, thus preventing acidosis.
2. Promotes optimum weight gain.
3. Allows protein to be used to build new tissues rather than to provide calories.
4. Encourages normal water balance.

Cow's milk—Dextri-Maltose® formulas, successful for 40 years, provide optimum amounts of protein, fat and carbohydrate. In accordance with recommendations of authorities, approximately 15% of the calories are supplied by protein, 35% by fat, 50% by carbohydrate.



A typical formula for a 4-month-old infant would consist of 12 oz. evaporated milk, 20 oz. boiled water, 6 tbsp. Dextri-Maltose. Caloric distribution: protein, 15%; fat, 39%; carbohydrate, 46%.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U.S.A.

ANNUAL MEETING—MAY 14, 15 and 16, 1951
HADDON HALL, ATLANTIC CITY

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 5 MAY, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 183 to 252

Place of Publication, Printing and Mailing:
116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society:
315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116-118 LINCOLN AVE., ORANGE, N. J.

EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MRS. EDITH L. MADDEN, *Acting Exective Officer and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, ALDRICH C. CROWE.....Ocean City
President-Elect, SIGURD W. JOHNSEN.....Passaic
First Vice-President, HARROLD A. MURRAY.....Newark
Second Vice-President, HENRY B. DECKER.....Camden
Secretary, MARCUS H. GREIFINGER.....Newark
Treasurer, GEORGE J. YOUNG.....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953).....Atlantic City
ELTON W. LANCE, *Secretary* (1952).....Rahway
ALDRICH C. CROWE.....Ocean City
SIGURD W. JOHNSEN.....Passaic
HARROLD A. MURRAY.....Newark
HENRY B. DECKER.....Camden
MARCUS H. GREIFINGER.....Newark
GEORGE J. YOUNG.....Morristown
WILLIAM F. COSTELLO (1953).....Dover
WILLIAM C. WILENTZ (1953).....Perth Amboy
JOSEPH G. COLEMAN (1953).....Hamburg
L. SAMUEL SICA (1951).....Trenton
DAVID W. GREEN (1951).....Salem
REUBEN L. SHARP (1951).....Camden
J. LAWRENCE EVANS (1951).....Woodcliff
ROYAL A. SCHAAF (1952).....Newark
WILLIAM E. DODD (1952).....Beach Haven

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1951)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....BARCLAY S. FUHRMANN, Flemington (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1951)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1951).....Hoboken
WILLIAM F. COSTELLO (1951).....Dover
J. WALLACE HURFF (1952).....Newark
DAVID B. ALLMAN (1952).....Atlantic City
ELMER P. WEIGEL (1952).....Plainfield
Vacancy (1952)

Alernates

ALBERT B. KUMP (1951).....Bridgeton
WALTER F. PHELAN (1951).....Elizabeth
JOHN H. ROWLAND (1952).....New Brunswick
FRANK W. KONZELMANN (1952).....Absecon
HERSCHEL PETTIT (1952).....Ocean City
L. SAMUEL SICA (1952).....Trenton

DELEGATES TO OTHER STATES

Delegates

Connecticut—C. BYRON BLAISDELL (1951).....Long Branch
New York—ALDRICH C. CROWE (1951).....Ocean City

Alternates

Connecticut—BLACKWELL SAWYER (1951).....Toms River
New York—D. WARD SCANLAN (1951).....Atlantic City

OFFICERS OF SCIENTIFIC SECTIONS

Allergy

EDWARD E. SEIDMON, *Chairman*.....Plainfield
LEWIS W. BROWN, *Secretary*.....Newark

Anesthesiology

WILLIAM J. GLEESON, *Chairman*.....Jersey City
JOSEPH P. CLEARY, *Secretary*.....Minotola

Chest Diseases

PAUL K. BORNSTEIN, *Chairman*.....Asbury Park
SAMUEL COHEN, *Secretary*.....Jersey City

Clinical Pathology

WILLIAM G. BERNHARD, *Chairman*.....Short Hills
WILLIAM W. HERSOHN, *Secretary*.....Atlantic City

Dermatology

JACOB M. SCHILDKRAUT, *Chairman*.....Trenton
BART M. JAMES, *Secretary*.....Newark

Eye, Ear, Nose and Throat

CHARLES W. BARKHORN, *Chairman*.....Newark
ROBISON D. HARLEY, *Secretary*.....Atlantic City

Gastro-Enterology and Proctology

FRANK S. FORTE, *Chairman*.....Newark
SAMUEL RUBIN, *Secretary*.....Asbury Park

General Practice

SAMUEL L. KAMAN, *Chairman*.....Atlantic City
EDWIN ROSNER, *Secretary*.....Collingswood

Heart Diseases

NORMAN REITMAN, *Chairman*.....New Brunswick
LOUIS F. ALBRIGHT, *Secretary*.....Spring Lake

Medicine

FRANK J. ALTSCHUL, *Chairman*.....Long Branch
J. JAMES SMITH, *Secretary*.....Elizabeth

Metabolism

EVERETT O. BAUMAN, *Chairman*.....Newark
JOSEPH SKWIRSKY, *Secretary*.....Newark

Neuropsychiatry

LEWIS H. LOESER, *Chairman*.....Newark
ROBERT S. GARBER, *Secretary*.....Trenton

Obstetrics and Gynecology

JOHN D. PREECE, *Chairman*.....Trenton
BENJAMIN DAVERSA, *Secretary*,.....Spring Lake

Orthopedics

PAUL J. FINEGAN, *Chairman*.....Trenton
RAPHAEL R. GOLDENBERG, *Secretary*.....Paterson

Pediatrics

MARTIN A. QUIRK, *Chairman*.....Red Bank
MARTIN GREEN, *Secretary*.....Atlantic City

Radiology

RAPHAEL POMERANZ, *Chairman*.....Newark
PETER GIANQUINTO, *Secretary*.....Newark

Rheumatism

ALFRED D. DENNISON, JR., *Chairman*.....Maplewood
IRVING L. SPERLING, *Secretary*.....Newark

Surgery

V. EARL JOHNSON, *Chairman*.....Atlantic City
STUART Z. HAWKES, *Secretary*.....Newark

Urology

ROBERT L. MCKIERNAN, *Chairman*.....New Brunswick
IRWIN MARKOWITZ, *Secretary*.....Jersey City

STANDING COMMITTEES

Finance and Budget

L. SAMUEL SICA (1951) ..... Trenton
DAVID B. ALLMAN (1953) ..... Atlantic City
WILLIAM F. COSTELLO (1955) ..... Dover
LUKE A. MULLIGAN (1956) ..... Leonia
ANTHONY J. CONTY (1952) ..... Union City
HERSCHEL PETTIT (1954) ..... Ocean City
GEORGE J. YOUNG, *Ex-Officio* ..... Morristown

Medical Defense and Insurance

J. WALLACE HURFF, *Chairman* (1953) ..... Newark
JOSEPH J. RUVANE (1952) ..... Jersey City
ARTHUR J. GANLEY (1952) ..... East Orange
GEORGE T. TRACY (1953) ..... Beverly
BENJAMIN F. SLOBODIEN (1951) ..... Perth Amboy
RUDOLPH C. SCHRETZMANN (1953) ..... Englewood
JAMES F. GLEASON (1951) ..... Ventnor

Publication

J. LAWRENCE EVANS, JR., *Chairman* (1951) ..... Leonia
JOSEPH E. MOTT (1952) ..... Paterson
RALPH M. L. BUCHANAN (1953) ..... Phillipsburg
MARCUS H. GREIFINGER, *Ex-Officio* ..... Newark
HENRY A. DAVIDSON, *Adviser* ..... Flemington

Scientific Work

First District—JOHN W. GRAY (1954) ..... Newark
Second District—WM. W. MAVER, *Chm.* (1955) ... Jersey City
Third District—PATRICK H. CORRIGAN (1951) ..... Trenton
Fourth District—S. EMLEN STOKES (1952) ..... Moorestown
Fifth District—HAROLD S. DAVIDSON (1953) ..... Atlantic City

Honorary Membership

SPENCER T. SNEDECOR, *Chairman* (1953) ..... Hackensack
ROYAL A. SCHAAF (1951) ..... Newark
JOSEPH F. LONDRIGAN (1952) ..... Hoboken

Woman's Auxiliary

LEWIS C. FRITTS, *Chairman* (1953) ..... Somerville
NORMAN NATHANSON (1952) ..... Long Branch
BAXTER H. TIMBERLAKE (1953) ..... Ventnor
ROBERT B. WALKER (1951) ..... New Brunswick
LLOYD A. HAMILTON (1951) ..... Lambertville

Medical Education

FRANCIS M. CLARKE, *Chairman* (1953) ..... New Brunswick
SAMUEL A. COSGROVE (1955) ..... Jersey City
HENRY B. DECKER (1952) ..... Camden
ERNEST F. PURCELL (1951) ..... Trenton
STUART Z. HAWKES (1954) ..... Newark
REUBEN L. SHARP ..... Camden

Annual Meeting

ASHER YAGUDA, *Chairman* (1951) ..... Newark
HARROLD A. MURRAY (1952) ..... Newark
JOSEPH P. DONNELLY (1952) ..... Jersey City
JOHANNES F. PESSEL (1953) ..... Trenton
WILLIAM W. HERSOHN (1953) ..... Margate City

Scientific Program

JOHANNES F. PESSEL, *Chairman* ..... Trenton
Chairmen and Secretaries of the Scientific Sections

Scientific Exhibit

WILLIAM W. HERSOHN, *Chairman* ..... Margate City
ROBERT B. DURHAM ..... Atlantic City
PAUL CUTLER ..... Atlantic City

WELFARE COMMITTEE

SAMUEL BLAUGRUND, *Chairman* ..... Trenton
ALDRICH C. CROWE, *Ex-Officio* ..... Ocean City
MARCUS H. GREIFINGER, *Ex-Officio* ..... Newark
EDWARD GUION (Atlantic County) ..... Pleasantville
JOSEPH McGAHN ..... Atlantic City
BAXTER H. TIMBERLAKE ..... Ventnor
RUDOLPH C. SCHRETZMANN (Bergen County) .. West Englewood
JOHN L. OLPP ..... Tenafly
EDWARD V. SEXTON ..... Teaneck
WILLIAM E. BRAY (Burlington County) ..... Pemberton
PAUL SPARKS ..... Burlington
ORAM R. KLINE (Camden County) ..... Camden
EDWARD A. Y. SCHELLENGER ..... Camden
WILLIAM BRAUN ..... Camden
SAMUEL B. HUGHES (Cape May County) ..... Wildwood
JOHN B. TOWNSEND ..... Ocean City
ALBERT B. KUMP (Cumberland County) ..... Bridgeton
MARY BACON ..... Bridgeton
KENNETH E. GARDNER (Essex County) ..... Bloomfield
JOSEPH I. ECHIKSON ..... Newark
RAPHAEL E. REMONDELLI ..... Newark
LOUIS K. COLLINS (Gloucester County) ..... Glassboro
ISAAC N. PATTERSON ..... Westville
CHESTER I. ULMER ..... Gibbstown
HUGH H. TYNDALL (Hudson County) ..... Weehawken
VINCENT P. BUTLER ..... Jersey City
RAYMOND S. DRISCOLL ..... Bayonne
RAYMOND J. GERMAIN (Hunterdon County) ..... Clinton
ARTHUR M. JENKINS ..... Frenchtown
DONALD C. LYNCH (Mercer County) ..... Trenton
JOHN L. WIKOFF ..... Trenton
R. JOHN COTTONE ..... Trenton
RALPH J. FAULKINGHAM (Middlesex County) .. New Brunswick
C. HOWARD ROTHFUSS ..... Woodbridge
JOSEPH H. KLER ..... New Brunswick
HARRY BRINDLE (Monmouth County) ..... Asbury Park
C. BYRON BLAISDELL ..... Long Branch
JOHN C. CLARK ..... Asbury Park
F. CLYDE BOWERS (Morris County) ..... Mendham
WILLIAM G. TALMAGE ..... Succasunna
SALVATORE GIORDANO ..... Morristown
BLACKWELL SAWYER (Ocean County) ..... Toms River
RAYMOND A. TAYLOR ..... Lakewood
H. HALE HOLLINGSWORTH (Passaic County) ..... Clifton
JOSEPH E. MOTT ..... Paterson
MORRIS JOSEPH ..... Passaic
HARRY F. SUTER (Salem County) ..... Penns Grove
JOHN MADARA ..... Salem
LEWIS C. FRITTS (Somerset County) ..... Somerville
GEORGE E. BARBOUR ..... Somerville
JAMES H. SPENCER (Sussex County) ..... Newton
JESSE McCALL ..... Newton
FREDERIC W. LATHROP (Union County) ..... Plainfield
HERSCHEL S. MURPHY ..... Roselle
EDWARD G. BOURNS ..... Westfield
RALPH M. L. BUCHANAN (Warren County) ..... Phillipsburg
TIMOTHY H. SPILLANE ..... Phillipsburg

SUBCOMMITTEES TO THE WELFARE COMMITTEE

Legislation

C. BYRON BLAISDELL, *Chairman* ..... Long Branch
H. HALE HOLLINGSWORTH ..... Clifton
FREDERICK S. TABER ..... New Brunswick
ADOLPH WEGROCKI ..... Newark
R. JOHN COTTONE ..... Trenton
BAXTER H. TIMBERLAKE ..... Ventnor
WALTER F. PHELAN ..... Elizabeth
JAMES S. SHIPMAN ..... Camden
JOSEPH F. LONDRIGAN, *Executive Secretary* ..... Hoboken

Public Relations

JOSEPH E. MOTT, *Chairman* ..... Paterson
JOHN B. TOWNSEND ..... Ocean City
HARRY F. SUTER ..... Penns Grove
FRANK S. FORTE ..... Newark
WILLIAM H. McCALLION ..... Elizabeth
JOSEPH R. JEHL ..... Clifton
WILLIAM E. BRAY ..... Pemberton
ARTHUR P. TREWHELLA ..... Jersey City
JOHN L. WIKOFF ..... Trenton
CHARLES CUNNINGHAM, JR. ..... Vineland
WILLIAM A. DOEBELE ..... Ocean City

SUBCOMMITTEES –Continued

Medical Practice

ALBERT B. KUMP, *Chairman* ..... Bridgeton
EDWARD T. LAWLESS ..... Upper Montclair
ANDREW C. RUOFF ..... Union City
FLORENTINE M. HOFFMAN ..... New Brunswick
HAROLD C. COX ..... Hightstown
H. WESLEY JACK ..... Camden
JOHN L. VARRIANO ..... Jersey City
ELMER J. ELIAS ..... Trenton
JOHN L. OLPP ..... Tenafly
WILLIAM K. HARRYMAN ..... Hackensack
D. WARD SCANLAN ..... Atlantic City
NATHAN SWERN ..... Trenton
HERSCHEL S. MURPHY ..... Roselle
ASHER YAGUDA ..... Newark

Public Health

JOSEPH I. ECHIKSON, *Chairman* ..... Newark
CARLYLE MORRIS ..... Metuchen
WILLIAM O. WUESTER ..... Hillside
JEROME G. KAUFMAN ..... Newark
FREDERIC W. LATHROP ..... Plainfield
REINHOLD W. TERKUILE ..... Ridgewood
H. EUGENE READING ..... Paterson
JOHN D. PREECE ..... Trenton
HARRISON F. ENGLISH ..... Trenton
RALPH M. L. BUCHANAN ..... Phillipsburg
ELTON W. LANCE ..... Rahway
CHRISTIAN P. SEGARD ..... Leonia
ABRAHAM E. JAFFIN ..... Jersey City
ROBERT L. MCKIERNAN ..... New Brunswick
ARTHUR SEWALL ..... Bridgeton

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON PUBLIC HEALTH

Adult Disease Control

CARLYLE MORRIS, *Chairman* ..... Metuchen
FREDERICK HNAT ..... Elizabeth
NORMAN L. MURRAY ..... Summit
BAXTER A. LIVENGOOD ..... Woodbury
MERTON L. GRISWOLD, JR. ..... Plainfield
VICTOR KNAPP ..... Asbury Park

Cancer Control

WILLIAM O. WUESTER, *Chairman* ..... Elizabeth
WILLIAM E. BRAY ..... Pemberton
JAMES S. GALLO ..... Paterson
OTTO R. HOLTERS ..... Asbury Park
JOSEPH I. ECHIKSON ..... Newark
W. JAMES MARQUIS ..... East Orange
H. WESLEY JACK ..... Camden
JOSEPH H. KLER ..... New Brunswick
JOHN L. OLPP ..... Tenafly
FRANK W. KONZELMANN ..... Absecon
NICHOLAS M. ALTER ..... Jersey City
FRANK M. MASTROIANNI ..... Roselle Park
GEORGE P. KOECK ..... Newark
VICTOR B. SEIDLER ..... Montclair
SALVATORE GIORDANO ..... Morristown

Consultants

CARL E. WEIGELE (Dept. of Health) ..... Trenton
EMIL FRANKEL, Ph.D. (Dept. of Inst. & Agencies) .... Trenton
MR. CHARLES C. HANSBURY (N. J. Cancer Society) .... Newark

Cardio-Vascular Diseases

JEROME G. KAUFMAN, *Chairman* ..... Newark
HARRY BLOCH ..... Elizabeth
NORMAN REITMAN ..... New Brunswick
HARVEY E. NUSSBAUM ..... Newark
LOUIS F. ALBRIGHT ..... Spring Lake
FRANK J. ALTSCHUL ..... Long Branch
HAROLD K. EYNON ..... Camden
G. BARTON BARLOW ..... Englewood
THOMAS J. WHITE ..... Jersey City
CLARENCE L. ANDREWS ..... Atlantic City
ROBERT B. DURHAM ..... Atlantic City
JOHN A. KINCZEL ..... Trenton
ROYAL S. SCHAAF ..... Newark

Chest Diseases

ABRAHAM E. JAFFIN, *Chairman* ..... Jersey City
J. S. D. EISENHOWER ..... Wildwood
MARCUS W. NEWCOMB ..... Browns Mills
JOSEPH A. SMITH ..... Glen Gardner
MARTIN H. COLLIER ..... Camden
HAROLD S. HATCH ..... Morristown
RUFUS R. LITTLE ..... Oradell
CHARLES HYMAN ..... Atlantic City
PAUL KLEMPNER ..... Trenton
HENRY A. BRODKIN ..... Newark
HOMER H. CHERRY ..... Paterson
JOHN E. RUNNELLS ..... Scotch Plains
A. JOSEPH HUGHES ..... Camden
PAUL GEARY ..... Plainfield
FREDERIC J. QUIGLEY ..... Jersey City

Consultant

MR. WILLIAM H. MACDONALD (Dept. of Health) ..... Trenton

Child Health

FREDERIC W. LATHROP, *Chairman* ..... Plainfield
GEORGE J. MCDONNELL ..... Freehold
ABRAM L. VAN HORN ..... Newark
EDWARD P. DUFFY, JR. ..... Belleville
HAROLD F. TIDWELL ..... West New York
HARROLD A. MURRAY ..... Newark
WILLIAM F. MATTHEWS ..... Montclair
WALTER L. MITCHELL, JR. ..... Newark
GEOFFREY W. ESTY ..... Westfield
WILLIAM L. RUMSEY, JR. ..... Elizabeth
JOSEPH F. RAFFETTO ..... Asbury Park
GRACE M. KAHRS ..... Newark
JULIUS LEVY ..... East Orange

Conservation of Vision and Hearing

REINOLD W. TERKUILE, *Chairman* ..... Ridgewood
GEORGE F. WORCESTER ..... Englewood
JAMES S. SHIPMAN ..... Camden
ROBISON D. HARLEY ..... Atlantic City
HOBART M. AGNEW ..... Montclair
OTTO S. HENSLE ..... Hackensack

Maternal Welfare

JOHN D. PREECE, *Chairman* ..... Trenton
SAMUEL A. COSGROVE ..... Jersey City
ROBERT A. MACKENZIE ..... Asbury Park
STANTON H. DAVIS ..... Plainfield
GEORGE B. GERMAN ..... Merchantville
RAYMOND T. POTTER ..... East Orange
GERALD W. HAYES ..... East Orange
J. CARLISLE BROWN ..... Atlantic City
FELIX H. VANN ..... Englewood
PERCY L. SMITH ..... Trenton
HERSCHEL S. MURPHY ..... Roselle
THEODORE K. GRAHAM ..... Paterson

Mental Hygiene

HARRISON F. ENGLISH, *Chairman* ..... Trenton
THEODORE R. ROBIE ..... East Orange
LEWIS H. LOESER ..... Newark
LUMAN H. TENNEY ..... Princeton
DAVID W. MCCREIGHT ..... Marlboro
HENRY A. DAVIDSON ..... Flemington
ROLAND J. LYNCH ..... Secaucus
J. BERKELEY GORDON ..... Marlboro
EDWARD P. DUFFY, JR. ..... Belleville

Consultant

EDWARD J. HUMPHREYS (Dept. of Inst. & Agencies) ... Trenton

Rehabilitation

H. EUGENE READING, *Chairman* ..... Paterson
JOHN J. FLANAGAN ..... Newark
HENRY H. KESSLER ..... Newark
HENRY BRIGGS ..... East Orange
PAUL J. FINEGAN ..... Trenton
FREDERICK G. DILGER ..... Hackensack
DAVID B. ALLMAN ..... Atlantic City
ELMER P. WEIGEL ..... Plainfield
OSWALD R. CARLANDER ..... Camden
ROBERT J. NEVILLE ..... Hackensack
JOSEPH J. BUTENAS ..... Elizabeth

Rural Health

RALPH M. L. BUCHANAN, *Chairman* ..... Phillipsburg
R. WINFIELD BETTS ..... Medford
CARL N. WARE ..... Shiloh
JOHN W. HARDY ..... Farmingdale
JOHN B. HOPPER ..... Mendham
C. SPENCER DAVISON ..... Salem
LEWIS C. FRITTS ..... Somerville
JOHN B. FUHRMANN ..... Flemington
LESTER R. EDDY ..... Sussex
WILLIAM G. HARRIS ..... Mullica Hill

PUBLIC HEALTH ADVISORY COMMITTEES—Continued

School Health

Elton W. Lance, *Chairman* ..... Rahway
Norman J. Quinn ..... Atlantic City
Grace M. Kahrs ..... Newark
William V. Carroll ..... Trenton
Frederick N. Bunnell ..... Barnegat
Frank Bartolini ..... Washington
Estelle T. Milliser ..... Westfield

Tropical Diseases

Christian P. Segard, *Chairman* ..... Leonia
Frank J. Altschul ..... Long Branch
Arturo R. Casilli ..... Elizabeth

Venereal Disease Control

Robert L. McKiernan, *Chairman* ..... New Brunswick
Baxter A. Livengood ..... Woodbury
Raphael S. Cantini ..... Plainfield

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON MEDICAL PRACTICE

Anesthesiology

Edward T. Lawless, *Chairman* ..... Upper Montclair
Leo J. Fitzpatrick ..... West Englewood
Irving R. Hayman ..... Paterson
Durant K. Charleroy ..... Trenton
Herman I. Roseman ..... Glen Ridge
Lester W. Netz ..... Hackensack
Abraham L. Dear ..... Newark

General Practice

D. Ward Scanlan, *Chairman* ..... Atlantic City
G. Ruffin Stamps ..... Atlantic City
Winton H. Johnson ..... Hackensack
Luis E. Viteri ..... Mt. Holly
Isaac N. Patterson ..... Westville
Paul Klempner ..... Trenton
Morton F. Trippe ..... Asbury Park
Runkle F. Hegeman ..... Somerville
Aaron H. Horland ..... Newark

Hospital Relationships

Florentine M. Hoffman, *Chairman* ..... New Brunswick
J. Harris Underwood ..... Woodbury
Watson B. Morris ..... Springfield
J. Lawrence Evans ..... Woodcliff
Leonard S. Ellenbogen ..... Atlantic City
John F. Johnson ..... Trenton
Francis M. Clarke ..... New Brunswick

Laboratory Medicine

Asher Yaguda, *Chairman* ..... Newark
William G. Bernard ..... Newark
Edwin H. Albano ..... East Orange
William W. Hersohn ..... Atlantic City
Thomas K. Rathmell ..... Trenton
A. Hobson Davis ..... Paterson

Nursing

H. Wesley Jack, *Chairman* ..... Camden
A. Charles Zehnder ..... Newark
Elizabeth R. Brackett ..... Nutley
Norman W. Burritt ..... Summit
M. Browne Holoman ..... Margate

Pharmaceutical Problems

John L. Varriano, *Chairman* ..... Jersey City
Chester I. Ulmer ..... Gibbstown
Louis Schneider ..... Newark
George M. Knowles ..... Hackensack
Edward F. Duschock ..... Perth Amboy

Physical Medicine

Elmer J. Elias, *Chairman* ..... Trenton
Bror S. Troedsson ..... Orange
Thomas P. McConaghy ..... Camden
James Hanrahan ..... Elizabeth
Frank B. Lane Haines ..... Ocean City

Radiology

John L. Olpp, *Chairman* ..... Tenafly
Harry R. Brindle ..... Asbury Park
Peter Gianquinto ..... Newark
Benjamin Copleman ..... Perth Amboy
Harry J. Perlberg ..... Jersey City
William H. Seward ..... Orange
Winthrop H. Hall ..... Westfield

Welfare Services

Harold C. Cox, *Chairman* ..... Hightstown
Richard T. Buckley, Jr. ..... Maple Shade
John F. Johnson ..... Trenton
Donald G. Reynolds ..... Freehold

Workmen's Compensation and Industrial Health

William K. Harryman, *Chairman* ..... Hackensack
Walter W. Mockett ..... Maywood
J. Mallory Carlisle ..... Westfield
John J. Haney ..... Trenton
Daniel F. Featherston ..... Asbury Park
Ralph A. Young ..... Linden

SPECIAL COMMITTEES

Civil Medical Defense

Andrew F. McBride, Jr., *Chairman* ..... Paterson
David B. Allman, *Vice-Chairman* ..... Atlantic City
Gerald W. Sinnott ..... Jersey City
Daniel Bergsma ..... Trenton
Stuart Z. Hawkes ..... Newark
Stewart Alexander ..... Park Ridge
G. Ruffin Stamps ..... Atlantic City
President, President-Elect, First and Second Vice-Presidents ..... *Ex-Officio*

Physician Resources Committee

William G. Herrman, *Chairman* ..... Deal
L. Samuel Sica, *Vice-Chairman* ..... Trenton
Andrew F. McBride, Jr. ..... Paterson
Frederick S. Taber ..... New Brunswick
Albert B. Kump ..... Bridgeton
F. Clyde Bowers ..... Mendham

Emergency Education Program

Harrold A. Murray, *Chairman* ..... Newark
Aldrich C. Crowe ..... Ocean City
Sigurd W. Johnsen ..... Passaic
Henry B. Decker ..... Camden
Marcus H. Greifinger ..... Newark
George J. Young ..... Morristown
David B. Allman ..... Atlantic City
William F. Costello ..... Dover

WOMAN'S AUXILIARY

Officers

President, MRS. R. JOHN COTTONE ..... Trenton
President-Elect, MRS. THOMAS H. McGLADE .. West Collingswood
First Vice-President, MRS. FRANK FORTE ..... Newark
Second Vice Pres. MRS. PAUL E. RAUSCHENBACH, JR. .. Paterson
Rec. Secretary, MRS. BERTRAM J. L. SAUERBRUN .... Elizabeth
Corresponding Secretary, MRS. GEORGE A. CORIO ..... Trenton
Treasurer, MRS. ASHER YAGUDA ..... Newark

Directors

MRS. WILLIAM L. RUMSEY ..... Elizabeth
MRS. D. LEO HAGGERTY ..... Trenton
MRS. WILLIAM C. V. WELLS ..... Delanco
MRS. FRANK L. PERRY ..... Woodstown
MRS. EDWARD H. DYER ..... Ventnor
MRS. WILLIAM J. GLEESON ..... Jersey City

OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	SECRETARY	REPORTER
ATLANTIC	G. Ruffin Stamps, Atlantic City	Louis Rosenberg, Atlantic City	Leonard B. Erher, Atlantic City
BERGEN	LeRoy W. Black, Rutherford	John E. McWhorter, Englewood	John E. McWhorter, Englewood
BURLINGTON	R. Winfield Betts, Medford	Richard T. Buckley, Maple Shade	Freeman W. Metzer, Riverside
CAMDEN	Oram R. Kline, Camden	William Braun, Camden	Louis G. McAfoos, Collingswood
CAPE MAY	Paul L. Yingling, Ocean City	Robert A. Cornwell, Ocean City	Marcus A. Fath, Wildwood
CUMBERLAND	Carl N. Ware, Shiloh	Mary Bacon, Bridgeton	Norman Henry, Vineland
ESSEX	Otto G. Matheke, Newark	Marcus H. Greifinger, Newark	Elizabeth Brackett, Newark
GLOUCESTER	A. Guy Campo, Westville	Clarence A. Bowersox, Woodbury	Louis K. Collins, Glasshoro
HUDSON	Noah Meyerson, Jersey City	Joseph P. Donnelly, Jersey City	Harry J. Perlberg, Jersey City
HUNTERDON	Lloyd A. Hamilton, Lamhertville	John B. Fuhrmann, Flemington	Henry A. Davidson, Flemington
MERCER	Harold S. Magee, Trenton	Harrison F. English, Trenton	Harrison F. English, Trenton
MIDDLESEX	Marshall Smith, New Brunswick	Charles F. Church, New Brunswick	Frank L. Paret, New Brunswick
MONMOUTH	Samuel Edelson, Ashury Park	Anthony J. DeVita, Port Monmouth	Lester A. Barnett, Ashury Park
MORRIS	J. Henry Harrington, Rockaway	Jack L. Voss, Morristown	Theodore R. Failmezger, Madison
OCEAN	Pierre J. Nyvall, Barnegat	Raymond A. Taylor, Lakewood	Sidney Alpert, Lakewood
PASSAIC	John E. Leach, Paterson	Floyd Fortuin, Paterson	Leopold E. Thron, Paterson
SALEM	August Jonas, Salem	Harry F. Suter, Penns Grove	John S. Madara, Salem
SOMERSET	William J. Alhrecht, Somerville	John L. Spaldo, Somerville	John L. Spaldo, Somerville
SUSSEX	Leo B. Drake, Franklin	John J. Piampiano, Hamburg	Martin I. Kirschner, Vernon
UNION	Herschel S. Murphy, Roselle	Edward G. Bourns, Westfield	Emanuel M. Satulsky, Elizabeth
WARREN	Joseph Humhert, Stewartsville	Ray C. Cooper, Washingon	Louis Genninger, Phillipsburg

CHANGE OF ADDRESS

In the event of a change of address or failure to receive THE JOURNAL regularly fill out this coupon and mail at once to

THE MEDICAL SOCIETY OF NEW JERSEY, 315 W. State St., Trenton 8, N. J.

Change my address on mailing list

From.....

To.....

Date..... *Signed*..... M.D.

Magna Cum Laude

CAPSULES

PROBESE

(MARA)

The most modern and the finest preparation available for the management of

OBESITY

Curbs the Appetite • Provides Bulk • Supplies Lipotropic Factors • Protection Against Nutritional Deficiencies •

Each Capsule Contains:

Dextro Amphetamine Sulfate		5 mg.
Methylcellulose		250 mg.
Choline Dihydrogen Citrate		20 mg.
Inositol		10 mg.
Vitamin B6	(Pyridoxine Hydrochloride)	1 mg.
Vitamin A	(Fish Liver Oil)	4000 U.S.P. Units
Vitamin D	(Irradiated Ergosterol)	400 U.S.P. Units
Vitamin B1	(Thiamine Hydrochloride)	1 mg.
Vitamin B2	(Riboflavin)	2 mg.
Vitamin C	(Ascorbic Acid)	30 mg.
Niacinamide		10 mg.

Moderate ℞ cost

Samples and Literature on request

The Mara Laboratories, Inc.

HARRISON NEW JERSEY

calcium

phospho

potassiu

iron

a new product

the Ca:P ratio is the key

A uniformly high calcium-phosphorus ratio . . . adjusted in BREMIL to a guaranteed minimum of 1½ parts calcium to 1 part phosphorus . . . this is the nutritional key to the prevention of hypertonicity, hyperirritability, and other tetanic symptoms in infants.

Gardner, Butler, et al., state: "Relative to human milk, cow's milk has a low Ca:P ratio . . ."[1] Nesbit writes: "Tetany of the newborn is now recognized as a definite entity . . . and often accompanied by an increased phosphorus and lowered blood calcium."[2] Dodd comments that "hypocalcemia tetany in the newborn may be of serious consequence."[3]

BREMIL . . . newest product of Borden research . . . is a completely modified milk in which nutritionally essential elements of cow's milk have been adjusted in order to supply the nutritional requirements of infants deprived of human milk. BREMIL is therefore a human milk replacement to which physicians can turn with confidence for uninterrupted good results.

uman milk	Bremil (reconstituted)	
034%	0.078%	
5 mg.	768 mg.	per qt.
015%	.052%	
8 mg.	512 mg.	per qt.
041%	.078%	
0 mg.	750 mg.	per qt.
0018%	.00082%	
5 mg.	8 mg.	per qt.

But an adjusted Ca:P ratio is not the only attribute that makes Bremil new and unique

BREMIL has the fatty acid and amino acid patterns of human milk . . . the same carbohydrate (lactose) . . . vitamin adjustments to meet the recommended standards of infant nutrition[4] . . . a soft, flocculent curd of small particle size comparable to human milk . . . complete solubility.

Just as with human milk you can start the infant on BREMIL the day it is born. Standard dilution is 1 level tablespoonful and 2 fl. oz. water, although BREMIL can be either concentrated or diluted. Each level tablespoonful BREMIL powder supplies 44 calories. BREMIL is easy to prepare and can be mixed for a single feeding or a 24-hour period.

Complete information and a trial supply may be obtained upon request. BREMIL is available in drugstores in 1 lb. cans.

1. Gardner, L. I., Butler, A. M., et al.: *Pediatrics* 5:228, 1950.
2. Nesbit, H. T.: *Texas State J. M.* 38:551, 1943.
3. Dodd, K., and Rapoport, S.: *Am. J. Dis. Children* 78:537, 1949.
4. Recommended Daily Dietary Allowances, Revised 1948, Food and Nutrition Board, National Research Council.

le, palatable, easy to prepare **Bremil**® *powdered infant food*

Prescription Products Division

The **Borden** Company, *350 Madison Avenue, New York 17*

Effective Help

for Your

Hay Fever

Patients

As the distressing hay fever season approaches, the strikingly effective action of Neo-Antergan® can bring your patients the comfort of relief from symptoms. Its benefits in safely relieving symptoms of allergy are available only through your prescription. *Neo-Antergan is the physician's product, advertised exclusively to the Medical Profession.*

Your local pharmacy stocks Neo-Antergan Maleate in 25 mg. and 50 mg. coated tablets, in bottles of 100, 500, and 1,000.

NEO-ANTERGAN®

MALEATE

(Brand of Pyrilamine Maleate)
(Formerly called Pyranisamine Maleate)
(N-p-methaxybenzyl-N',N'-dimethyl-N-a-pyridylethylenediamine maleate)

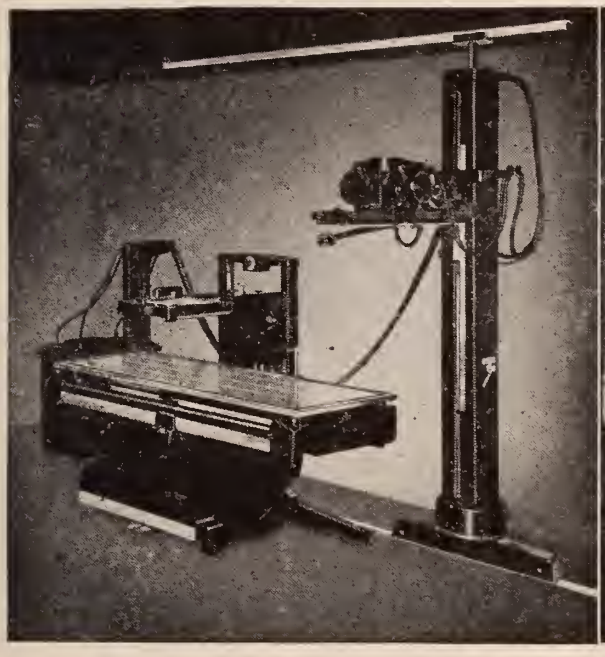
COUNCIL ACCEPTED

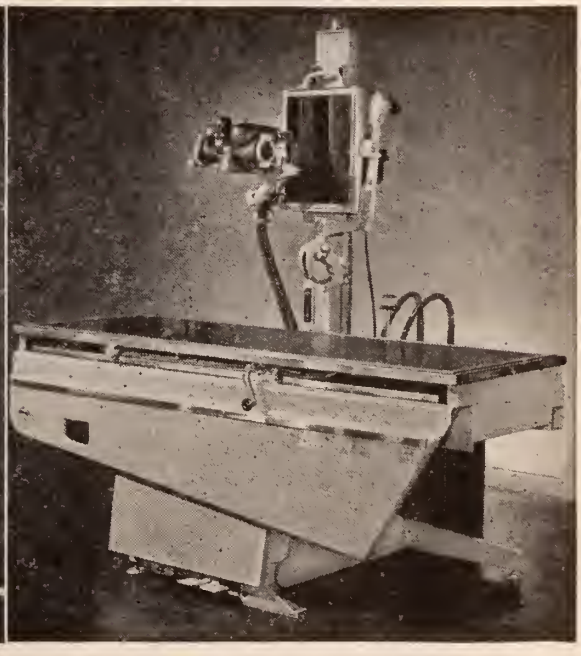
MERCK & CO., INC.
Manufacturing Chemists
RAHWAY, NEW JERSEY

You asked for

GE MAXISERVICE

the plan that brings you fine x-ray apparatus for monthly service fee!





*Take advantage of Maxiservice . . . you benefit 17 ways!**

IT'S easy to buy — there's no cash outlay for apparatus. There's no maintenance cost, no obsolete equipment to worry about and here's another plus—Maxiservice provides equipment of *your* choice. Regular line apparatus such as you see pictured above. More, Maxiservice includes installation, tube and parts replacement and maintenance.

Check the Maxiservice way today. Maxiservice may be just what you're looking for. See your GE representative or write* for folder that shows you how you benefit 17-ways with Maxiservice.

GENERAL ELECTRIC X-RAY CORPORATION

Direct Factory Branches:

NEWARK — 10 Third Street **PHILADELPHIA — 1624 Hunting Park Avenue**

Wyeth

Some Peptic Ulcer Patients Do Better on Phosphaljel

Clinical experience confirms that certain types of difficult-to-manage ulcer show a more striking and lasting response to PHOSPHALJEL therapy than to other types of medication. Palatable PHOSPHALJEL is the peptic ulcer medication of choice in the following conditions:

- Marginal or jejunal ulcer following gastrojejunostomy.[1]
- Ulcer complicated by deficiency of pancreatic secretion or by diarrhea.[1,2,3]
- Prophylactically, after peptic ulcer surgery, and during seasonal recurrence.[3]

PHOSPHALJEL quickly relieves pain and promotes healing. Excellent for oral therapy, and for intragastric drip therapy.

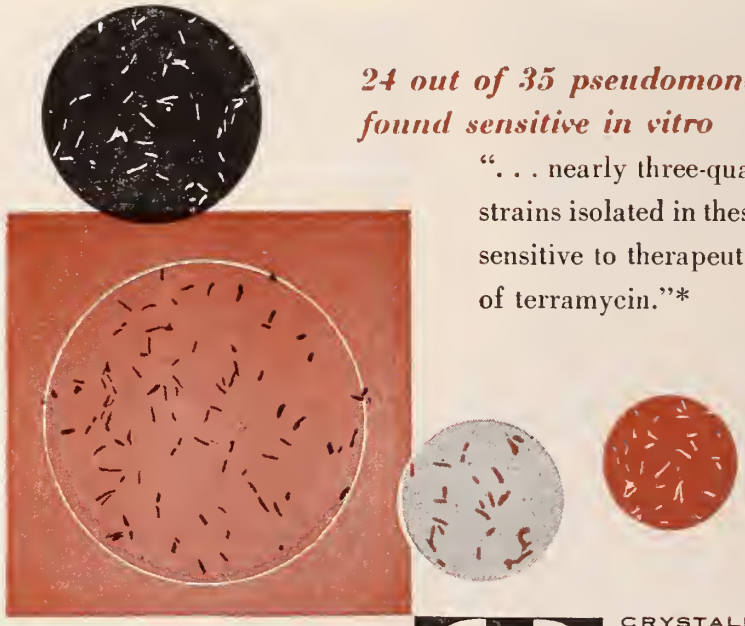
1. *Fauley, G. B., Freeman, S., Ivy, A. C., Atkinson, A. J., and Wigodsky, H. S.: Arch. Int. Med. 67:653, 1941.*
2. *Upham, R., and Chaikin, N. W.: Rev. Gastroenterol. 10:287, 1943.*
3. *Collins, E. N.: J. A. M. A. 127:890, 1945.*

PHOSPHALJEL®

ALUMINUM PHOSPHATE GEL WYETH

Wyeth INCORPORATED, PHILADELPHIA 2, PA.

"... OFFERS REAL PROMISE .



24 out of 35 pseudomonas strains found sensitive in vitro

"... nearly three-quarters of the strains isolated in these laboratories are sensitive to therapeutic concentrations of terramycin."*

CRYSTALLINE

Terra

Bacterial resistance usually not a problem

"During the treatment of the cases described, no resistant mutants of originally sensitive strains have appeared; particular attention in this respect has been paid to strains of coliform bacilli in urinary infections. In vitro experiments indicate that with some coliform strains a slow step-like resistance can be evoked, but there has so far been no occurrence of any 'streptomycin-like' resistance."*

*Linsell, W. D., and Fletcher, A. P.: British M. J. 2:1190 (Nov. 25) 1950.

Antibiotic Division

Pfizer

IN PSEUDOMONAS INFECTIONS

Promising clinically in urinary infections due to pseudomonas

"Our limited clinical results bear out expectations founded on the in vitro activity of the drug . . ."

"It appears likely that with high dosage, leading to urinary levels of 300-400 mcg./ml. practically all cases infected with Ps. pyocyanea will be amenable to therapy."*

Promising clinically in superficial infections due to pseudomonas

"In addition to our findings with the treatment of Ps. pyocyanea infections of the urinary tract, our preliminary data with regard to superficial infections with this organism show that terramycin offers real promise in controlling pyocyanea infections by local or systemic administration."*

mycin

HYDROCHLORIDE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

The growing clinical literature continues to stress:

1. The broad-spectrum activity of Terramycin against organisms in the bacterial and rickettsial as well as several protozoan groups.

2. The promptness of response to Terramycin in acute and chronic infections involving a wide range of organs, systems and tissues.

Crystalline Terramycin Hydrochloride is available as:

CAPSULES, 250 mg., bottles of 16 and 100; 100 mg., bottles of 25 and 100; 50 mg., bottles of 25 and 100.

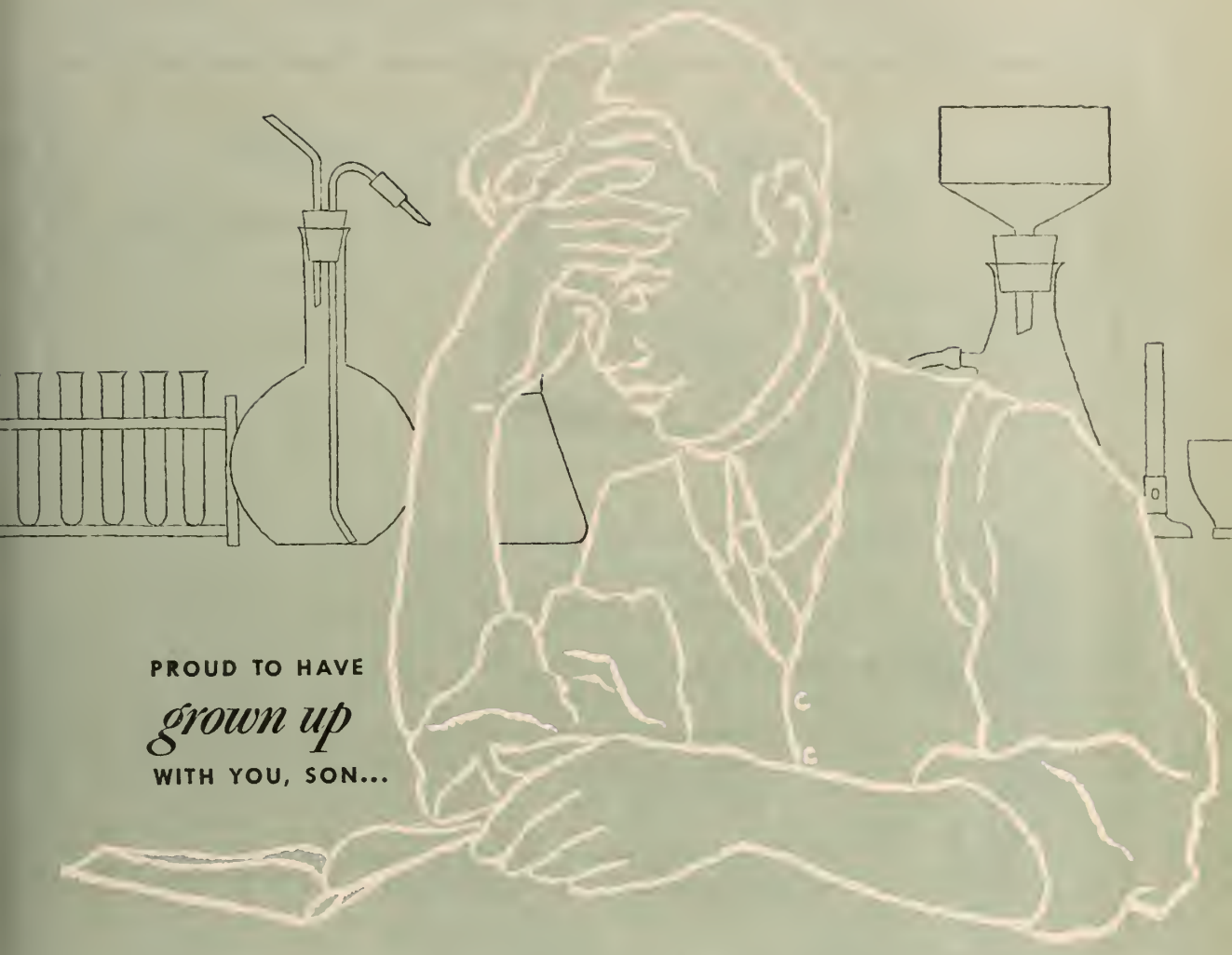
ELIXIR (formerly Terrabon), 1.5 Gm. with 1 fl. oz. of diluent.

INTRAVENOUS, 10 cc. vial, 250 mg.; 20 cc. vial, 500 mg.

OPHTHALMIC OINTMENT, 1 mg. per Gm. ointment; tubes of ⅛ oz.

OPHTHALMIC SOLUTION, 5 cc. dropper-vials, 25 mg. for preparation of topical solutions.

S. PFIZER & CO., INC., *Brooklyn 6, N. Y.*



PROUD TO HAVE
grown up
WITH YOU, SON...

If you're like many other doctors, you became accustomed to using Mallinckrodt chemicals in your student days—and as a professional man, you continue to use Mallinckrodt medical products and prescription chemicals.

Such loyalty is no accident. In 1919—about half a century after the founding of this business—Edward Mallinckrodt, Sr. expressed its continuing policy:

> "We realized from the start that business depends on reciprocal relations and confidence; that we would have to establish a reputation for fair, honorable, liberal dealings and to make it to the interest of the buyer to place his orders with us, by supplying goods of the highest quality at competitive prices, giving prompt service and endeavoring to satisfy our customers as far as possible in every respect."

MALLINCKRODT CHEMICAL WORKS • St. Louis • New York • Montreal

Mallinckrodt®

ETHER FOR ANESTHESIA • SODA LIME • PRECIPITATED BARIUM SULFATE • UROKON SODIUM 30% • HIPPURAN • OVER 1500 PRESCRIPTION CHEMICALS

• MANUFACTURERS OF FINE CHEMICALS AND DRUGS FOR THE MEDICAL PROFESSION • SINCE 1867 •

Keep him active . . longer

with plenty of citrus fruit

As at the other end of the age gamut, optimal nutrition can make a tremendous difference in the vigor and stamina of the oldster.[1,6,8-11] Many geriatricians stress the importance of vitamin C in the management of geriatric diets,[2,5,9] and recommend a fully adequate intake[5,9] of citrus fruits and juices (so often neglected by older people)—because of their high content of this essential vitamin and of other nutrients. Fortunately most everyone likes the taste of Florida citrus fruits and juices. They may be served in a variety of ways, and—under modern techniques of processing and storage, whether fresh, canned or frozen—they can *retain their ascorbic acid content,[3,7] and their pleasing flavor,[4] in very high degree and over long periods.*

FLORIDA CITRUS COMMISSION • LAKELAND, FLORIDA

Citrus fruits—among the richest known sources of Vitamin C—also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.

References:

1. Chideckel, M.: M. Rec., 158:736, 1945. 2. Gordon, E. S.: Nutrition and Vitamin Therapy in General Practice, Year Book Publishers, Chicago, 1947. 3. Krehl, W. A. and Cowgill, G. R.: Food Research, 15:179, 1950. 4. Moore, E. L. et al.: J. Home Econ., 37:290, 1945. 5. Rafsky, H. A. and Newman, B.: Am. J. M. Sc., 201:749, 1941. 6. Rafsky, H. A. and Newman, B.: Geriatrics, 2:101, 1947. 7. Roy, W. R. and Russell, H. E.: Food Industries, 20:1784, 1948. 8. Sadow, S. E.: M. Woman's J., 50:98, 1943. 9. Stephenson, W. et al.: Brit. M. J., 2:839, 1941. 10. Stieglitz, E. J.: J.A.M.A., 142:1070, 1950. 11. Thewlis, M. W.: The Care of the Aged, 5th ed., Mosby, 1946.

FLORIDA

Oranges • Grapefruit • Tangerines

"Gravity-grip"

greatest improvement in film-viewing since Picker brought out the first Fluorescent Illuminator

This is the new Picker "Gravity-Grip"* Illuminator—greatest improvement in x-ray film viewing since we introduced the Fluorescent Illuminator back in 1938.

Gone are the old-fashioned spring film clips. Instead, you see the "Gravity-Grip" trough running straight across the top of the viewing glass. Film-holding pressure is the same along its every inch, holding *any size* film firm and flat against the glass *anywhere* you put it. There's nothing to get out of order: nothing to adjust, no springs to weaken, no pivots to wobble. And from the standpoint of *appearance*—well, look for yourself.

Ask your local Picker representative to show you the Picker Illuminator with the new "Gravity-Grip." It's first-rate on every count . . . in the efficiency of its even flood of softly-diffused light . . . in the beauty of its satin-chrome finish . . . in the permanence of its corrosion-proof frame of solid Monel metal.

Picker X-Ray Corporation, 300 Fourth Avenue, New York 10, N.Y.

*Patents Pending

Two-frame Illuminator

Four-frame Bank Illuminator

Eight-frame Bank Illuminator on Mobile Stand

Picker x-ray

all you expect . . . and more

NEWARK 2 *(Northern)* **N. J.,** 972 Broad Street
MAPLEWOOD, N. J., 17 Van Ness Court
MATAWAN, N. J., 54 Edgemere Drive

PHILADELPHIA 4 *(Southern)* **PA.,** 103 S. 34 Street
NUTLEY, N. J., 226 Hillside Avenue

A Preferred Nasal Decongestant and Vasoconstrictor

Otorhinolaryngologists frequently express preference for Neo-Synephrine hydrochloride to alleviate turgescence and nasal congestion in colds, sinusitis and various forms of rhinitis.

"When considerable nasal obstruction exists, relief may be obtained by the instillation of some shrinking agent into the nose . . . as for example Neo-Synephrine hydrochloride (¼%)"[1]

A "desirable preparation of this type has been perfected in Neo-Synephrine hydrochloride. It may be used for local application in the nose in ¼ to 1% solution."[2]

Neo-Synephrine's "desired effect occurs within from two to fifteen minutes . . ."[3]

"Its action is sustained for two hours or more."[3]

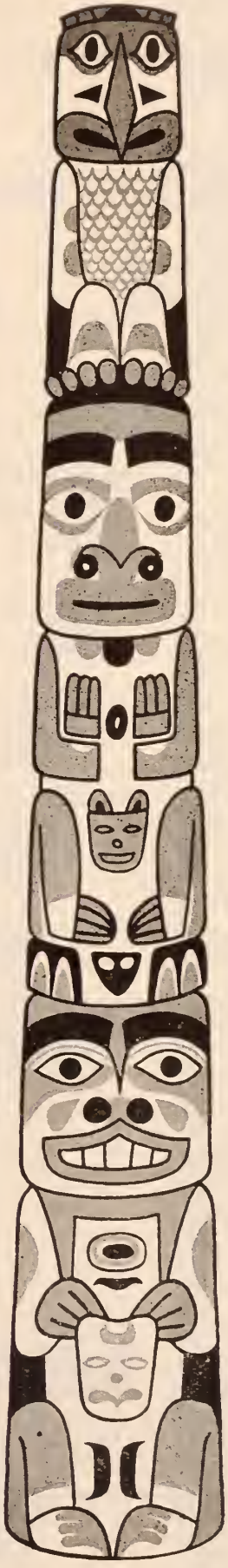
Neo-Synephrine hydrochloride is notable for freedom from sting and for effectiveness on repeated application. There are few complaints of after effects such as burning and nasal congestion . . . and little tendency to develop local sensitivity.[1]

NEO-SYNEPHRINE® HYDROCHLORIDE

Prompt and Prolonged Relief in

COLDS • SINUSITIS • HAY FEVER

Winthrop-Stearns INC.
NEW YORK 18, N. Y. WINDSOR, ONT.



1. Tuft, L.: Clinical Allergy. Philadelphia, W. B. Saunders Co., 1947, pp. 335-336.
2. Hansel, F. K.: Allergy of the Nose and Paranasal Sinuses. St. Louis, C. V. Mosby Co., 1936, p. 769.
3. Kelley, S. F.: Choice of Sympathomimetic Amines. Cornell Conferences on Therapy, II, 1947, p. 156.

Neo-Synephrine, trademark reg. U. S. & Canada, brand of phenylephrine

predictable control of hay fever

Chlor-*Trimeton* Maleate, milligram for milligram the most potent antihistamine available, allows the physician to predict a definitive and favorable result in symptomatic control of hay fever. Often successful when others fail, and producing few and minimal side effects, Chlor-*Trimeton* Maleate may supersede other compounds designed for the same purpose.

Chlor-*Trimeton*®

maleate tablets

(brand of chlorprophenpyridamine maleate)

Chlor-*Trimeton* Maleate is available in 4 mg. tablets.

*T.M.

Schering CORPORATION • BLOOMFIELD, N. J.

Chlor-*Trimeton*

SCHERING

Volume 48
Number 5

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

Published Monthly Since 1904

Whole Number of Issues 561

Under the Direction of the
Committee on Publication
J. Lawrence Evans, Jr., M.D.,
Chairman

Henry A. Davidson, M.D., Editor

Miriam N. Armstrong,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of The Journal every month.

Vol. 48, No. 5 May, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE: LAST CALL FOR ATLANTIC CITY

This is the month when the New Jersey doctor gets his unique chance for a real triple play. The streamlined annual meeting which opens in Atlantic City on the 14th of this month will compress into three interesting days several meetings of your House of Delegates, a veritable postgraduate course in medicine, and a chance to sample some of the play life for which Atlantic City is internationally famous. Your Program Committee is setting up the scientific sessions into two major specialty groups: medicine and surgery. This is in contrast with the practice of holding a dozen small section meetings which has sometimes fractionated attendance at previous conventions. The General Session is keyed to Civil Medical Defense. The Annual Meeting offers the usual exhibits — technical, scientific and educational. It offers a once-a-year chance to meet with old friends and classmates. Several of the sections and specialty groups will hold special get together luncheons.

While these are busy days for all of us, it should be possible for almost every doctor to break his accustomed routine long enough to spend three pleasant spring days at Atlantic City and to make his voice heard in the parliament of New Jersey medicine.

Aldrich C. Crowe, M.D.

THE 185th ANNUAL MEETING
OF
THE MEDICAL SOCIETY OF NEW JERSEY
HADDON HALL, ATLANTIC CITY
May 14, 15 and 16, 1951

DAILY SCHEDULE

SUNDAY, MAY 13, 1951

3:00 p. m.—Registration Opens
Lounge Floor
6:00 p. m.—Executive Committee Dinner
Rowsley Room, First Floor
Judicial Council Dinner
Room 134, First Floor
8:00 p. m.—Board of Trustees
Bakewell Room, First Floor

MONDAY, MAY 14, 1951

9:00 a. m.—Exhibits Open
Lounge and Thirteenth Floors
9:30 a. m.—Section on Medicine
Vernon Room, Lounge Floor
10:00 a. m.—Section on Surgery
Viking Room, Thirteenth Floor
12:30 p. m.—Luncheons:
Section on Clinical Pathology
Room 1344, Thirteenth Floor
Section on General Surgery
Rowsley Room, First Floor
Section on Radiology
Bakewell Room, First Floor
1:00 p. m.—Auxiliary Pre-Convention Board Meeting
Mandarin Room, Thirteenth Floor
2:30 p. m.—Section on Medicine
Vernon Room, Lounge Floor
Section on Surgery
Viking Room, Thirteenth Floor
3:30 p. m.—Auxiliary Informal Tea
Benjamin West Room, Thirteenth Fl.
5:30 p. m.—Public Relations Buffet-Dinner and Meeting
Rutland Room, First Floor
6:30 p. m.—Auxiliary Fellowettes' Dinner
Mandarin Room, Thirteenth Floor
Fellows' Dinner
Rowsley Room, First Floor
Exhibitors' Party
Benjamin West Room, Thirteenth Fl.
8:30 p. m.—Nominating Committee
Bakewell Room, First Floor

TUESDAY, MAY 15, 1951

9:30 a. m.—Auxiliary General Session
Mandarin Room, Thirteenth Floor
10:00 a. m.—House of Delegates
Viking Room, Thirteenth Floor
12:30 p. m.—Luncheons:
Section on General Practice
Roberts Room, Chalfonte
Section on Neuropsychiatry
Rowsley Room, First Floor
Section on Heart Diseases
Bakewell Room, First Floor
New Jersey Chapter, American College of Chest Physicians
Blue Room, Chalfonte
New Jersey Medical Women's Association
Coral Room, Lounge Floor
Medical Practice Committee
Green Room, Thirteenth Floor
Woman's Auxiliary
Benjamin West Room, Thirteenth Fl.
2:30 p. m.—Section on Medicine
Vernon Room, Lounge Floor
Section on Surgery
Viking Room, Thirteenth Floor
3:00 p. m.—Auxiliary General Session, continued
Mandarin Room, Thirteenth Floor
4:00 p. m.—New Jersey Society of Physical Medicine
Rowsley Room, First Floor
5:00 p. m.—Medical Advisory Board, New Jersey League for Planned Parenthood
Room 1344, Thirteenth Floor
8:30 p m.—General Session
Vernon Room, Lounge Floor
Reference Committees
First and Thirteenth Floors

WEDNESDAY, May 16, 1951

9:00 a. m.—Section on Medicine
Vernon Room, Lounge Floor
Section on Surgery
Viking Room, Thirteenth Floor
Auxiliary Inaugural Breakfast
Mandarin Room, Thirteenth Floor
10:00 a. m.—Auxiliary Post-Convention Board Meeting
Mandarin Room, Thirteenth Floor
12:30 p. m.—House of Delegates (Election)
Viking Room, Thirteenth Floor
2:00 p. m.—House of Delegates
Viking Room, Thirteenth Floor
Auxiliary Officers' Instruction Meeting
Mandarin Room, Thirteenth Floor
4:00 p. m.—Council, New Jersey Obstetrical and Gynecological Society
Green Room, Thirteenth Floor
5:00 p. m.—Registration and Exhibits Close
Lounge and Thirteenth Floor
6:00 p. m.—Social
Benjamin West Room, Thirteenth Fl.
7:00 p. m.—Banquet
Rutland Room, First Floor

GENERAL SESSION

Tuesday Evening, May 15, 1951

8:30 p. m.

Vernon Room, Lounge Floor

Civil Medical Defense—Panel Discussion
Moderator: Andrew F. McBride, Jr., M.D., Chairman
Committee on Civil Medical Defense, Paterson

Panel:
Leonard Dreyfuss, Director
New Jersey State Civil Defense Organization, Trenton

Daniel Bergsma, M.D., Chairman
Medical and Health Preparedness Committee
New Jersey State Civil Defense Organization, Trenton

Perrin H. Long, M.D., Member
Council on National Emergency Medical Service, American Medical Association, Baltimore

Norvin C. Kiefer, M.D., Director
Health Resources Division,
National Security Resources Board, Washington

An open meeting for all members of the Society and the Woman's Auxiliary, representatives of the allied medical professions, the press and local and state civil defense organizations.

SCIENTIFIC SECTIONS

Monday Morning, May 14, 1951

MEDICINE

(Presented by Sections on Dermatology and Gastro-Enterology and Proctology)

Jacob M. Schildkraut, M.D., Chairman, Trenton
Bart M. James, M.D., Secretary, Newark

Vernon Room, Lounge Floor

9:30 a. m.

Occupational and Industrial Dermatoses—An Analytic and Statistical Survey (illustrated)
Bart M. James, M.D., Chief of Dermatologic Service, St. Michael's Hospital, Newark
Co-Author and Discussor: J. Bleiberg, M.D., Associate Attending Dermatologist, St. Michael's Hospital, Newark

10:00 a. m.

General Principles in Diagnosis and Treatment of Fungus Infections
Donald M. Pillsbury, M.D., Professor of Dermatology, University of Pennsylvania School of Medicine, Philadelphia

10:30 a.m.—12:30 p. m.

Symposium on Gastro-Intestinal Malignancies
Moderator: Frank S. Forte, M.D., Chief of Proctology, St. Michael's Hospital, Newark

Diagnosis of Malignancies of the Esophagus and Stomach
J. Edward Berk, M.D., Assistant Professor of Medicine, Temple University School of Medicine, Philadelphia

Diagnosis of Malignancies of the Intestinal Tract
Linn J. Boyd, M.D., Professor of Medicine, New York Medical College, Flower and Fifth Avenue Hospitals, New York City
Co-Authors: Walter L. Mersheimer, M.D., and Edward J. Nightingale, M.D., Department of Medicine, New York Medical College, Flower and Fifth Avenue Hospitals, New York City

Surgical Aspects of Malignancies of the Gastro-Intestinal Tract
Earl J. Halligan, M.D., Chief of Surgery, St. Francis Hospital, Jersey City
Co-Authors: Louis L. Perkel, M.D., Chief of Gastro-enterology, Jersey City Medical Center, Jersey City
J. Kenneth Catlaw, M.D., Visiting Surgeon, St. Francis Hospital, Jersey City
Leonard Troast, M.D., Assistant Gastro-enterologist, Jersey City Medical Center, Jersey City

X-Ray Diagnosis of Malignancies of the Gastro-Intestinal Tract
Francis P. Carrigan, M.D., Roentgenologist, St. Michael's Hospital, Newark

---

SURGERY

(Presented by Sections on Radiology and General Surgery)

V. Earl Johnson, M.D., Chairman, Atlantic City
Stuart Z. Hawkes, M.D., Secretary, Newark

Viking Room, Thirteenth Floor

10:00 a. m.

Renal Rickets
William H. Seward, M.D., Attending Radiologist, Orange Memorial Hospital, Orange
Discussor: John R. Gilmour, M.D., Assistant Attending Pediatrician, Orange Memorial Hospital, Orange

10:30 a. m.

Psycho-Surgery
C. Archie Crandell, M.D., Medical Superintendent, New Jersey State Hospital, Greystone Park
Edward I. Kessler, M.D., Surgeon, New Jersey State Hospital, Greystone Park
Discussor: J. Berkeley Gordon, M.D., Medical Superintendent, New Jersey State Hospital, Marlboro

11:00 a. m.—12:15 p. m.

Panel Discussion—Hypothetical Civilian Disaster
Moderator: Robert H. Kennedy, M.D., Chairman, Committee on Trauma, American College of Surgeons, New York City

Complications of Fractured Ribs
George N. J. Sommer, Jr., M.D., Thoracic Surgeon, St. Francis Hospital, Trenton

Emergency Management of Burns
Paul Mecray, Jr., M.D., Chief, Surgical Service C, Cooper Hospital, Camden

Treatment of Acute Traumatic Lesions of the Hand
John J. Flanagan, M.D., Attending, Orthopedic and Fracture Service, St. Michael's Hospital, Newark

Emergency Treatment of Intracranial Lesions
Thomas S. P. Fitch, M.D., Attending Neurosurgeon, Muhlenburg Hospital, Plainfield

Monday Afternoon, May 14, 1951

MEDICINE

(Presented by Sections on Allergy, Metabolism and Radiology)

Edward E. Seidmon, M.D., Chairman, Plainfield
Lewis W. Brown, M.D., Secretary, Newark

Vernon Room, Lounge Floor

2:30 p. m.

Management of Allergic Conditions of Upper Respiratory Tract

A. In Adults

Nathan Schaffer, M.D., Chief of Allergy, East Orange General Hospital, East Orange

B. In Children

Edward E. Seidmon, M.D., Plainfield, Chief of Allergy, Newark Veterans Administration Regional Office

3:00 p. m.

The Use of the Various Insulins with Special Reference to Timing
George M. Knowles, M.D., Attending Physician, Diabetic Clinic, Hackensack Hospital, Hackensack
J. John Kristal, M.D., Attending Physician, Diabetic Clinic, Hackensack Hospital, Hackensack
Discussor: William C. Giordano, M.D., Chief of the Diabetic Clinic, Englewood Hospital, Ridgefield

3:30 p. m.

Evidence of Vascular Disease in Diabetics—Statistical Study of 264 Cases
Otto Brandman, M.D., Associate in Metabolism, City Hospital, Newark
Co-Author: Walter Redisch, M.D., Assistant Professor of Clinical Medicine, New York University Medical School, New York City
Discussor: Henry Dolger, M.D., Adjunct Physician in Metabolic Diseases, Mt. Sinai Hospital, New York City

4:00 p. m.—5:00 p. m.

Radio-Isotopes in Medicine
Henry D. Diamond, M.D., Assistant Attending, Memorial Hospital, New York City
Discussor: Louis J. Levinson, M.D., Director, Radio-Isotopes Department, Beth Israel Hospital, Newark

SURGERY

(Presented by Sections on General Surgery and Radiology)

V. Earl Johnson, M.D., Chairman, Atlantic City
Stuart Z. Hawkes, M.D., Secretary, Newark

Viking Room, Thirteenth Floor

2:30 p. m.

Lesions of the Esophagus
William Reinhoff, M.D., Associate Professor of Surgery, The Johns Hopkins Medical School, Baltimore
Discussor: Julian Johnson, M.D., Associate Professor of Surgery, University of Pennsylvania School of Medicine, Philadelphia

3:10 p. m.

Radiological Aspects of Esophageal Lesions
Peter J. Gianquinto, M.D., Radiologist, St. Barnabas Hospital, Newark
Discussor: C. Abbott Beling, M.D., Attending Surgeon, St. Barnabas Hospital, Newark

3:40 p. m.—4:20 p. m.

Symptoms Following Biliary Tract Surgery and Appraisal of Their Etiology and Their Correction
Earl J. Halligan, M.D., Chief of Surgery, St. Francis Hospital, Jersey City
Co-Authors: Louis L. Perkel, M.D., Chief of Gastroenterology, Jersey City Medical Center, Jersey City
J. Kenneth Catlaw, M.D., Visiting Surgeon, St. Francis Hospital, Jersey City
Leonard Troast, M.D., Assistant Gastro-enterologist, Jersey City Medical Center, Jersey City
Dicussors: Hilton S. Read, M.D., Ventnor, Chief of Intern and Resident Education, Atlantic City Hospital, Atlantic City
Irvin E. Deibert, M.D., Chief, Surgical Department, Cooper Hospital, Camden

Tuesday Afternoon, May 15, 1951

MEDICINE

(Presented by Sections on Chest Diseases and Heart Diseases)

Norman Reitman, M.D., Chairman, New Brunswick
Louis F. Albright, M.D., Secretary, Asbury Park

Vernon Room, Lounge Floor

2:30 p. m.

Symposium on the Recent Advances in the Diagnosis and Treatment of Heart Diseases
Moderator: Howard B. Sprague, M.D., President, American Heart Association, Boston

2:40 p. m.

Radiological Aspects

Henry K. Taylor, M.D., Roentgenologist, Goldwater Memorial Hospital, New York City

3:05 p. m.

Electrocardiographic Aspects

Samuel Bellet, M.D., Associate Professor of Cardiology, Graduate School of Medicine, University of Pennsylvania, Philadelphia

3:30 p. m.

Medical Therapy

Jerome G. Kaufman, M.D., President, New Jersey Heart Association, Newark

3:55 p. m.

Surgical Therapy

Charles P. Bailey, M.D., Professor of Thoracic Surgery, Hahnemann Medical College, Philadelphia

4:20 p. m.—5:00 p. m.

Questions and Discussion from the Floor

SURGERY

(Presented by Sections on Urology and Eye, Ear, Nose and Throat)

ROBERT L. MCKIERNAN, M.D., Chm., New Brunswick
IRWIN MARKOWITZ, M.D., Secretary, Jersey City

Viking Room, Thirteenth Floor

2:30 p. m.

The General Practitioner as Urologist

Elmer Hess, M.D., President-Elect, The American Urological Association, Erie, Pa.

Discussors: C. Byron Blaisdell, M.D., Director of Urology, Fitkin Memorial Hospital, Asbury Park

Harry Taff, M.D., Secretary, General Practitioners Section, Academy of Medicine of Northern New Jersey, Newark

3:00 p. m.

Lumbar and Right Quadrant Pain

W. Kenneth Wheeler, M.D., Attending Urologist, Presbyterian Hospital, Newark

Discussors: Charles H. deT. Shivers, M.D., Secretary, The American Urological Association, Atlantic City

Theodore Silverman, M.D., President-Elect, New Jersey Chapter, American Academy of General Practice, Elizabeth

Charles W. Barkhorn, M.D., Chairman, Newark

Robison D. Harley, M.D., Secretary, Atlantic City

3:30 p. m.

Ocular Classification of Hypertension

Glen G. Gibson, M.D., Professor of Ophthalmology, Temple University School of Medicine, Philadelphia

Discussor: Robison D. Harley, M.D., Atlantic City, Assistant Professor of Ophthalmology, Temple University School of Medicine, Philadelphia

4:00 p. m.—4:30 p. m.

The Poliomyelitis-Tonsillectomy Problem

Daniel S. Cunning, M.D., Surgeon Director, Manhatten Eye, Ear and Throat Hospital, New York City

Discussor: Ellis L. Smith, M.D., Medical Director, Essex County Isolation Hospital, Belleville

Wednesday Morning, May 16, 1951

SURGERY

(Presented by Sections on Obstetrics and Gynecology and Anesthesiology)

JOHN D. PREECE, M.D., Chairman, Trentor
BENJAMIN DAVERSA, M.D., Secretary, Spring Lake

Viking Room, Thirteenth Floor

9:00 a. m.—11:00 a. m.

Symposium on Pelvic Surgery

Non-Malignant Tumors

John B. Montgomery, M.D., Professor of Gynecology, Jefferson Medical College, Philadelphia

Malignant Tumors

James A. Corscaden, M.D., Professor of Clinical Gynecology (Emeritus), College of Physicians and Surgeons, Columbia University, New York City

Discussors: Inglis F. Frost, M.D., Morristown, Chief, Endocrine Clinic, Women's Hospital, New York City

Hammell P. Shipps, M.D., Chief of Gynecology, Cooper Hospital, Camden

Leon Motyloff, M.D., Chief Pathologist, Women's Hospital, New York City

11:00 a. m.—12:00 noon

The Incidence, Cause and Prevention of Maternal Death Associated with Anesthesia

Robert A. Hingson, M.D., Associate Professor of Obstetrics, The Johns Hopkins Hospital, Baltimore

Discussors: Edward G. Waters, M.D., Division Chief of Obstetrics, Margaret Hague Maternity Hospital, Jersey City

Irving R. Hayman, M.D., Associate Anesthetist, Barnert Memorial Hospital, Paterson

MEDICINE

(Presented by Section on General Medicine in collaboration with Sections on Allergy, Metabolism, Ophthalmology, Pediatrics and Rheumatism)

FRANK J. ALTSCHUL, M.D., Chairman, Long Branch
J. JAMES SMITH, M.D., Secretary, Elizabeth

Vernon Room, Lounge Floor

9:00 a. m.—12:00 noon

Symposium on ACTH and Cortisone

Metabolic Changes Incident to the Use of ACTH and Cortisone

George A. Perera, M.D., Associate Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York City

The Role of Cortisone and ACTH in the Basic Mechanism of Rheumatoid Diseases
Thomas McPherson Brown, M.D., Professor of Medicine, George Washington University School of Medicine, Washington, D.C.
Study of the Collagen Diseases
Louis J. Soffer, M.D., Associate Attending Physician and Chief, Endocrine Research Laboratory and Clinic, Mt. Sinai Hospital, New York City
ACTH and Cortisone in Allergic Diseases
William B. Sherman, M.D., Chief of Allergy Clinic, Presbyterian Hospital, New York City
Uses in Ophthalmology
Glen G. Gibson, M.D., Professor of Ophthalmology, Temple University School of Medicine, Philadelphia
Panel Discussion
William B. Sherman, M.D., Moderator

MOTION PICTURE THEATRE

Tower Room, Thirteenth Floor

Effects of the Atomic Bomb—Three part color and sound film from the First Army Film Library—Part I—32 minutes— depicts the physical destruction and casualty effects of an atomic bomb explosion. Part II—37 minutes—depicts the pathology and clinical problems of an atomic bomb explosion. Part III—28 minutes—depicts the planning and medical services needed in an atomic disaster.

"Wise action will save lives"—This is the slogan of the Medical and Health Preparedness Committee of the New Jersey State Civil Defense Organization. After viewing this film you will be impressed with the need for planning prompt and adequate medical service. The profession of prompt and adequate service can decrease the number of deaths and permanent disabilities due to an atomic explosion.

Parts I and III are available for showing to lay groups, while Part II is available for showing to professional groups only.

Here's Health—The American Way—This motion picture is one of two on the subject of health progress produced by Louis de Rochemont—who made such award-winning films as "Lost Boundaries", "The House on 92nd Street", and "Fighting Lady". "Here's Health—The American Way" runs 38 minutes and is designed for use by the medical profession. The second de Rochemont film, "M.D.—The U. S. Doctor", is a shorter documentary-type film produced for showing in commercial theatres throughout the country.

HOUSE OF DELEGATES

Presiding Officer, Aldrich C. Crowe, M.D., President, Ocean City
Secretary, Marcus H. Greifinger, M.D., Newark
Parliamentarian, Royal A. Schaaf, M.D., Newark
Sergeants-at-Arms: Benjamin F. Lee, M.D., Camden
John L. Wikoff, M.D., Trenton

The Committee on Credentials will meet at the Registration Desk each morning of the meeting.

Viking Room, Thirteenth Floor

First Session: 10:00 a. m., Tuesday, May 15, 1951

Order of Business

1. Call to Order
2. Organization of House of Delegates
3. Minutes of 1950 Meeting
4. Introduction of Delegates from Other States
5. Annual and Supplemental Reports
6. New Business
7. Address of the Incoming President
8. Announcements

Second Session: 12:30 p.m., Wednesday, May 16, 1951

Order of Business

1. Report of Nominating Committee
2. Election

Third Session: 2:00 p. m., Wednesday, May 16, 1951

Order of Business

1. Reports of Reference Committees
2. Unfinished Business
3. Installation of Incoming President
4. Adjournment

REFERENCE COMMITTEES

Tuesday Evening, May 15, 1951, 8:30 p. m.
First and Thirteenth Floors

Reference Committee "A", to consider reports of:
The President
The Board of Trustees
The Secretary
The Judicial Council
The Executive Officer

Reference Committee "B", to consider reports of:
The Treasurer
The Finance and Budget Committee
The Publication Committee

Reference Committee "C", to consider reports of:
The Medical Service Administration
The Medical-Surgical Plan
The Civil Medical Defense Committee
The Physician Resources Committee
The Emergency Education Program Committee

Reference Committee "D", to consider reports of:
The Medical Defense and Insurance Committee
The Scientific Work Committee
The Advisory Committee to the Woman's Auxiliary
The Medical Education Committee
The New Jersey State Board of Medical Examiners

Reference Committee "E", to consider reports of:
The Welfare Committee
The Subcommittees of the Welfare Committee
The Advisory Committees to the Subcomittees of the Welfare Committee

---

Reference Committee on Constitution and By-Laws, to consider:
Amendments to the Constitution
Amendments to the By-Laws

Reference Committee on Miscellaneous Business, to consider also reports of:
The Annual Meeting Committee
The Subcommittee on Scientific Program
The Subcommittee on Scientific Exhibits
The Place and Dates for the 1952 Annual Meeting

Reference Committee on Resolutions and Memorials, to consider also reports of:
The Committee on Honorary Membership
Nominations for Emeritus Membership

Reference Committee on Credentials
Meets at Registration Desk each morning of the meeting.

DINNER DANCE

in honor of

PRESIDENT AND MRS. ALDRICH C. CROWE

Wednesday Evening, May 16, 1951

Rutland Room, First Floor

7:00 p. m.

Toastmaster: Dr. Hilton S. Read

Welcome: Mrs. R. John Cottone, President, Woman's Auxiliary
Dr. Aldrich C. Crowe, President

Introductions: Mrs. Thomas H. McGlade, President-Elect, Woman's Auxiliary
Dr. Sigurd W. Johnsen, President-Elect

Presentation of Fellow's Key:
To: Dr. Aldrich C. Crowe, President
By: Dr. J. Howard Hornberger, Fellow

Entertainment:
Joe Rankin, xylophone virtuoso
Amory and Bishop, singing duo
The Duffies, modern dance team

Music:
Joseph Sterns' Orchestra

NOTE:—Your Dinner Ticket will also entitle you to attend the Cocktail Party at 6:00 p. m. to be given in honor of the Presidents of the Woman's Auxiliary and The Medical Society of New Jersey by the Woman's Auxiliary.

THE WOMAN'S AUXILIARY

to

THE MEDICAL SOCIETY OF NEW JERSEY

TWENTY-FOURTH ANNUAL MEETING

Monday, May 14, 1951

10:00 a. m.—Registration, Breakfast, Luncheon and Dinner Tickets
Lounge Floor

1:00 p. m.—Pre-Convention Board Meeting
Mandarin Room, Thirteenth Floor

3:30 p. m.—Informal Tea
Benjamin West Room, Thirteenth Fl.
All physicians' wives cordially invited

6:30 p. m.—Fellowettes' Dinner
Mandarin Room, Thirteenth Floor
By invitation only

Tuesday, May 15, 1951

9:00 a. m.—Registration, Breakfast, Luncheon and Dinner Tickets
Lounge Floor

9:30 a. m.—General Session
Mandarin Room, Thirteenth Floor

Order of Business:

1. Invocation:
   Reverend Harvey Bennett, D.D.
2. Pledge of Loyalty to the Woman's Auxiliary to the American Medical Association
   Mrs. Norman Nathanson,
   Immediate Past-President
3. Welcome: Mrs. Clarence Whims, President, Woman's Auxiliary to the Medical Society of Atlantic County
4. Response: Mrs. Thomas H. McGlade, President-Elect
5. Memorial Services for Departed Members
6. Reports

12:30 p. m.—Luncheon honoring
Mrs. R. John Cottone, President
Benjamin West Room, Thirteenth Fl.

Toastmistress: Mrs. Robert B. Walker

Welcome: Mrs. R. John Cottone, President

Greetings: Aldrich C. Crowe, M.D., President, The Medical Society of New Jersey

Guest Speaker: Mr. Richard I. Nevin, Executive Officer, The Medical Society of New Jersey

Presentation of President's Pin:
To: Mrs. R. John Cottone, President
By: Mrs. Norman Nathanson, Junior Past-President

3:00 p. m.—General Session, continued
Mandarin Room, Thirteenth Floor
Order of Business:
6. Reports and Discussions
7. Unfinished Business
8. Report of Nominating Committee
9. Election of Officers

8:30 p. m.—General Session
Vernon Room, Lounge Floor

The members of the Woman's Auxiliary are cordially invited to attend the Panel Discussion on Civil Medical Defense by The Medical Society of New Jersey.

Wednesday, May 16, 1951

9:00 a. m.—Inaugural Breakfast
Mandarin Room, Thirteenth Floor
Speaker: Sigurd W. Johnsen, M.D., President-Elect, The Medical Society of New Jersey

10:00 a. m.—Post-Convention Board Meeting
Mandarin Room, Thirteenth Floor

2:00 p. m.—Officers' Instruction Session
Mandarin Room, Thirteenth Floor
Mrs. Thomas H. McGlade, President, presiding
Instruction session for new officers, chairmen and county presidents.

6:00 p. m.—Social
Benjamin West Room, Thirteenth Fl.

7:00 p. m.—Banquet
Rutland Room, First Floor

SPECIAL EXHIBIT

Sun Porch, Lounge Floor

Information on Projected Medical School—Presented under the auspices of the Special Committee on Medical School in New Jersey, The Medical Society of New Jersey

The Commission appointed by the Governor at the request of The Medical Society of New Jersey reported to the Legislature at its present session. The exhibit will include the highlights of their recommendations, particularly the three major points of the report:

1. Need for a medical school
2. Place
3. Financing

Personnel will be present at the exhibit to discuss definite points of interest in the report with both physicians and laymen who attend the meeting.

EDUCATIONAL EXHIBITS

13th Floor

Booth 1—Heart Quiz—New Jersey Heart Association, Inc., Newark, N. J. A question and answer exhibit about diseases of the heart and circulatory system. When you push the correct answer button the heart marked *yes* lights up to read "Right" and a beautifully mellow chime rings out.

If you push the wrong answer button, you get the raspberry chime and the heart marked *no* lights up to reveal that you are wrong.

Heart Quiz pamphlets, together with request cards for other publications of the American Heart Association are given to each person visiting the exhibit.

Booth 2 — *The New Jersey Formulary* — Joint Committee on Professional Relations, Trenton, N. J. Preparations devised by the Joint Committee on Professional Relations which are included in the recently issued Sixth Edition of the *New Jersey Formulary* will be featured, with special attention to flavors and colors for prescription medications.

Booth 3—Physician Resources Committee of The Medical Society of New Jersey: A Component of the State Advisory Committee to Selective Service, Trenton, N. J. Classification chart of relation of State Advisory Committee to Selective Service *et al.* and related origin, together with samples of questionnaire.

Booth 4—American Cancer Society, New Jersey Division, Inc., Newark, N. J. Outline of facilities available for cancer patients in New Jersey and manner in which each contributed dollar is spent under supervision of physicians.

Booth 5—New Jersey State Commission for the Blind, Newark, N. J. Glaucoma machine with colored slides used for educating the public in the seriousness of glaucoma and the importance of early diagnosis and treatment.

Booth 6—Medical-Surgical Plan of New Jersey, Newark, N. J. Medical-Surgical Plan of New Jersey represents the medical profession's major constructive contribution to the need of voluntary medical care insurance for people of low and medium incomes.

Organized by The Medical Society of New Jersey in 1942, Medical-Surgical Plan now is helping more than half a million New Jersey people to pay their medical bills. This exhibit is offered for the information and guidance of the more than 4700 participating physicians in New Jersey whose cooperation makes it possible for Medical-Surgical Plan to render an increasing service to the public and the profession.

Booth 7—Patient Complaints Arising from Dispensing Procedures—Guild of Prescription Opticians of New Jersey, East Orange, N. J. Slides projected on a screen automatically. Backdrop of photostats of Guild Emblem. Give away bottles of lens cleaner. Eye Charts. Pamphlets on "Care of Eyes" in various forms.

Booths 8 and 9—Medical, Health and Welfare Preparedness for Civil Defense—Eastern States Conference on Local Health Administration and Civil Defense, Princeton, N. J. (January 21-23, 1951). Organization of the Medical, Health and Welfare Preparedness Committee for Civil Defense; A-bomb effect and place of the hospital in Civil Defense.

SCIENTIFIC EXHIBITS

Lounge Floor

Booth 1—Radioactive Isotopes in Medical Practice—L. J. Levinson, M.D., Lester M. Goldman, M.D.,, N. J. Furst, M.D., Newark Beth Israel Hospital in cooperation with The American Cancer Society, New Jersey Division, Newark.

The exhibit shows in a series of 8 x 10 or 5 x 7 photographs with printed texts (size 8 x 10) the procurement of radioactive isotopes; how radioactive isotopes are handled once they have been received at the isotope laboratory; the medical team required for the administration of radioactive isotopes; the clinical applications of radioactive isotopes; and the availability of radioactive isotopes for medical treatment in New Jersey. Under a special section there is a text showing the dosage schedule in radioisotope therapy.

Booth 2—The Diagnostic Role of Radioactive Isotopes—Bernard Roswit, M.D., Joseph Sorrentino, M.D., and Rosalyn Yalow, Ph.D., Radioisotope Unit, Radiotherapy Department, Veterans Administration Hospital, Bronx, N. Y.

The exhibit consists of 11 cardboard panels, 8 of which are 40 inches tall and 30 inches wide; one panel is 40" x 20" and 2 panels are 40" x 10".

Booth 3—Pediatric Surgery—Robert B. Lobban, M.D., Lawrence E. Ulvestad, M.D., David K. Pinks, M.D., and Charles P. DeFuccio, M.D., Jersey City Medical Center, Jersey City.

The exhibit consists of 70 hand-painted moulages: water-color illustrative drawings of the pathology at operation; short summaries of the case histories and pertinent physical findings and photographs of associated x-rays of the following conditions: volvulus, intussusception, appendicitis, pyloric stenosis, esophageal fistulae, anal anomalies, Meckel's diverticula, intestinal obstruction, biliary surgery and diaphragmatic anomalies.

Booth 4 — Functional Adrenal Cortical Carcinoma—Milton Kannerstein, M.D., Newark Beth Israel Hospital, Newark. Charts present general clinical, pathologic and laboratory features of

adrenal cortical tumors showing endocrine effects. Two cases are shown presenting malignant adrenal cortical tumors with postmortem gross and microscopic photographic findings.

Booth 5—Pressure of the Esophagus Due to an Anomalous Right Subclavian Artery—George Fey Stoll, M.D., and Leo H. Siegel, M.D., Gastro-Intestinal Clinics, Hospital of St. Barnabas and Presbyterian Hospital, Newark. This exhibit shows: (1) Outline of embryology and anatomy, (2) symptomatology, (3) treatment, and (4) case history for five original cases.

Booth 6—Lesions of the Blood Forming Organs—Samuel A. Goldberg, M.D., Presbyterian Hospital, Newark.

The exhibit illustrates pathologic conditions of the spleen, bone marrow and lymph nodes including the leukemias, the lymphomas and other changes in the reticuloendothelial system. These will be illustrated by black and white and natural color transparencies and mounted case histories.

Booth 7—Clinical Use of Cortisone and Related Steroids in Rheumatic Diseases—John W. Gray, M.D., Evelyn Merrick, M.D., and Irving L. Sperling, M.D., New Jersey Orthopedic Hospital, Orange, and Hospital of St. Barnabas, Newark.

A summary of the clinical use, physiologic effects and side effects of Cortisone, ACTH, Progesterone, Pregnenolone, Desoxycorticosterone Acetate and Vitamin C.

Booth 8—Artificial Kidney—Bernard C. Pinck, M.D., Passaic, New York University-Bellevue Medical Center, New York City.

The artificial kidney mechanically constructed by the Allis-Chalmers Company is a modification of the original Kolff kidney. The machine will be demonstrated and a simulated "run" will be accomplished. The exhibit also includes charts demonstrating the mechanism of dialysis and clinical charts of results with patients.

Booth 9—ACTH Test in Surgery—Oscar Glass, M.D., Warren Kauder, M.D., M. Jonas Colmer, M.D., in collaboration with Lester Goldman, M.D., Newark Beth Israel Hospital Laboratories, Newark.

The relationship of the drop in circulating eosinophils after a single dose of ACTH (Thorn Test) to the ability of the patient to withstand a surgical procedure. Eighty-four cases will be summarized.

Booth 10—Gastroscopic Biopsy—Paul L. Shallenberger, M.D., Guthrie Clinic, Sayre, Pa.

A wide variety of cases have been studied by biopsy of the gastric mucosa. The exhibit is in 8 x 10 color photo micrographs with color print and x-ray positives. Charts present cases studied and conclusions. Illustrative cases with normal mucosa and the gastritis mucosa are emphasized. Malignant and benign tumors including most types of carcinoma are shown. Broder and Borrman classification is correlated.

Booth 11—Meckel's Diverticulum—Thomas A. Shallow, M.D., Jefferson Medical College, Philadelphia; Sherman A. Eger, M.D., and Frederick B. Wagner, Jr., M.D.

This exhibit will illustrate the varying clinical manifestations of Meckel's diverticulum, the difficulties in diagnosis, and the problems in treatment from a series of 75 cases. It will be shown that the grave complications frequently associated with Meckel's diverticulum transform its role from a mere surgical curiosity to one of importance in both acute abdominal emergencies and elective laparotomies. Incidental search for Meckel's diverticulum at laparotomy should be just as routine as for the appendix. If the diverticulum is found, it should be removed whenever possible, for it is a potential source of danger which can be eliminated with no appreciable risk.

Booth 12—The Skin in Health and Disease—An A.M.A. Exhibit sponsored by the Northern New Jersey Dermatologic Society through Harry C. Goldberg, M.D., Plainfield.

This is an A.M.A. health exhibit affording visitor participation. The subjects in this exhibit are cosmetics, baldness, superfluous hair, sunburn and frost bite. In addition to the prepared A.M.A. exhibit, a model demonstrating the use of the Wood's light in ringworm of the scalp will be shown.

Booth 13—Cardiology in a Psychiatric Hospital—Albert Abraham, M.D., U. S. Veterans Hospital, Lyons.

Posters with case histories, diagrams, and mounted electrocardiograms illustrate the variety of general and special cardiovascular problems encountered in a large neuropsychiatric hospital.

Booth 14—Carcinoma of the Colon—Louis L. Perkel, M.D., and Leonard Troast, M.D., Jersey City Medical Center, Jersey City.

This presents a series of 16 cases of carcinoma of the colon with roentgen films and accompanying moulages of the resected specimens. These demonstrate the similarity betwen the filling defects in the roentgen films and the actual size and form of the lesion as found at operation. There is also a brief discussion of the salient factors in making roentgen diagnosis in carcinoma of the colon more accurate and in avoiding the erroneous interpretation.

Booth 15—Practical Value of Pulmonary Function Studies in Diseases of the Chest—George F. Piltz, M.D., Benjamin P. Potter, M.D., and Samuel Cohen, M.D., B. S. Pollak Hospital for Chest Diseases, Jersey City.

Basic purpose of the exhibit is to show the practical value of some pulmonary function tests in estimating functional reserve of the lungs, particularly when such surgical procedures as thoracoplasty, lobectomy, pneumonectomy, are being considered. Cases shown include studies by spirometry and bronchospirometry, before and after surgical procedures.

Booth 16—Neuropathic Bone Changes—Philip J. Santora, M.D., and Raphael Pomeranz, M.D., Newark City Hospital, Newark.

Twenty-four 8 x 10 transparencies, in 10 x 12

mounts, show various types of neuropathic bone changes, in paraplegics, neuro-syphilis, cerebral palsy, neoplastic cord lesions, diabetes, leprosy, syringo-myelia and others with clinical radiologic and microscopic findings.

Booth 17—Tumors of the Mediastinum—Henry A. Brodkin, M.D., and Emanuel Klosk, M.D., Newark.

This exhibit highlights the classification, description, x-ray findings and pathologic specimens of the different kinds of mediastinal tumors.

Booth 18—Hypertension Due to Pheochromocytoma—Marvin C. Becker, M.D., Jerome G. Kaufman, M.D., Newark, and Michael Carlozzi, M.D., Rahway.

The exhibit covers the detailed study of 100 cases of pheochromocytoma with emphasis on incidence, location of chromaffin tumors, pathology, clinical pictures, diagnosis and treatment. Particular stress is placed on the pharmacologic diagnosis especially with benzodioxan. This exhaustive survey makes obsolete many of the older teachings on the subject.

Booth 19 — Modern Concepts of Endocrine Therapy in Gynecic Disorders—Herbert S. Kupperman, M.D., Stanley J. Goodman, M.D., Jay Burger, M. S., and Jacob L. Balk, Newark Clinical Group, Newark.

A graphic and pictorial presentation of endocrine therapy in the treatment of disorders of menstruation, dysmenorrhea, endocrine allergy, the menopause and libido will be made. The effect of the endocrine preparations on the physiologic and morphologic changes in the organism will be described. Steroid hormones as diagnostic implements will be discussed. Newer therapeutic concepts will be presented and case histories shown.

Booth 20—Acromegaly — Rita S. Finkler, M.D., and George M. Cohn, M.D., Newark Beth Israel Hospital, Newark.

Several cases of acromegaly with typical clinical manifestations were observed by us for varying periods, ranging from 2 to 15 years. These patients were studied extensively and were given all accepted forms of therapy, such as hormones and radiation. An evaluation of symptomatology and laboratory findings in relation to the therapy is made. The exhibit consists of 8 posters with photographs of patients and x-rays, clinical histories, detailed laboratory findings, graphically presented and therapy used. A general discussion of acromegaly is also included.

Booth 21—Reconstructive Surgery of the Disabled Hand — Michael L. Lewin, M.D., Paterson.

The exhibit consists of charts with photos of traumatic and congenital hand deformities showing pre- and postoperative conditions. Several drawings and photos of intermediate stages are used to explain the surgical procedures; examples of prosthetic restorations are also exhibited.

Booth 22—Photography of the Eye: Anterior Segment and Eyegrounds—Margaret Markham, B.A., Photography Department, Newark Eye and Ear Infirmary, Newark.

Slides illustrate the problems encountered in photography of the eye. Other slides demonstrate results of proper and improper technics.

Photographic equipment (camera and electronic flash) is used to record pathology of the anterior ocular segment and the Zeiss-Nordenson retinal camera is used to obtain pictures of the fundus. Equipment for obtaining photomicrographs is presented.

Booth 23—Plastic and Reconstructive Surgery—Hans May, M.D., and Richard S. Oakey, Jr., M.D., Philadelphia.

This display of colored transparencies shows various stages in plastic and reconstructive surgery of cleft lip and palate, nasal deformities and deformities of the breasts, the closure of traumatic lip defects, treatment of burns and surgery of the tendons of the hand.

TECHNICAL EXHIBITS

Lounge Floor

Booth 1—The C. V. Mosby Company, St. Louis—Many new and interesting titles will be found at the C. V. Mosby Company Booth where you are invited to visit and browse at your leisure. Among some of the recent editions which will be of interest to you are: Bray "Clinical Laboratory Methods", Herrmann "Methods in Medicine", DeSanctis-Varga "Pediatric Emergencies", Evans "Medical Treatment", Willis "Principles of Pathology", Meakins "Practice of Medicine", Berman "Principles and Practice of Surgery", Adler "Physiology of the Eye", Tassman "Eye Manifestations of Internal Diseases" and many others.

Booth 2—The Doho Chemical Corporation, New York—The Doho Chemical Corporation and its subsidiary, Mallon Chemical Corporation, makers of *Auralgan, O-Tos-Mo-San* and *Rectalgan*, are proud to announce their new nasal decongestant, *Rhinalgan*—a balanced formulation of two active chemical compounds that gives prolonged vasoconstriction—used as a spray, in our patented Dohony Spray-O-Mizer (combination dropper and spray)—pleasant tasting, with no systemic effect (pressor or respiratory), and can be safely used for infants and children.

Our representatives will be happy to explain the

merits of *Rhinalgan* and distribute samples of this innovation.

Booth 3—Varick Pharmacal Company, New York.

Booth 4—M and R Dietetic Laboratories, Inc., Columbus, Ohio—Our representatives for *Similac* and *Cerevim* will appreciate the opportunity to discuss with you the merits and use of our products in the field of infant and child nutrition.

Booth 5—Sharpe & Dohme, Inc., Philadelphia, Pa.—Clinical data from the laboratories of the Medical Research Division of Sharp & Dohme will be featured. The potentiating effect of a combination of the antibodies, bacitracin and tyrothricin; the synergistic effect of penicillin in conjunction with the sulfonamides; and the use of Blood Group Specific Substances A and B in conditioning Group O Blood, are of major interest.

Booth 6—W. B. Saunders Company, Philadelphia, Pa.—We invite all doctors to visit our exhibit where we will display a complete line of our books including Conn's "1951 Current Therapy", Sodeman's "Pathologic Physiology", Shanks & Kerley's "Textbook of X-ray Diagnosis", Alvarez's "The Neuroses", Duncan's "Diabetes Mellitus", Cecil & Loeb's (new 8th edition) "Textbook of Medicine", Levine's (new 4th edition) "Clinical Heart Diseases", Braasch & Emmett's "Clinical Urography", Anson's "Atlas of Human Anatomy", Hyman's "Integrated Practice of Medicine", Hyman's (new) "Progress Volume", Colonna's "Regional Orthopedic Surgery", Schwab's "Electroencephalography", Sweet's "Thoracic Surgery", Friedbert's "Diseases of the Heart", Smith's "Plastic and Reconstructive Surgery", Greenhill & De Lee's (new 10th edition) "Principles and Practice of Obstetrics", and many other new books and new editions.

Booth 7—Faulhaber and Heard, Inc., Newark, N. J.—Full particulars can be obtained on the special Professional Liability contract for members of The Medical Society of New Jersey upon inquiry at the booth of the Official Broker, Faulhaber & Heard, Inc.

Individual protection is also available to registered or graduate nurses, x-ray and laboratory technicians and physiotherapists employed by physicians insured.

Those physicians who have not taken advantage of these important features of their membership are advised to confer with our representatives.

Booth 8—E. and W. Blanksteen, Jersey City, N. J.—The State Society's plan of Accident and Health Insurance for its members underwritten by the National Casualty Company of Detroit through the State Society brokers, E. & W. Blanksteen, 75 Montgomery Street, Jersey City 2, N. J., has again been improved by the Company by the extension of its maximum limit of coverage from $400 monthly benefit to $600 monthly benefit. Impaired risks who were previously limited by the Company to $200 monthly benefit were permitted to increase to $300 monthly benefit in the special enrollment from April 2nd to May 2nd, 1951.

Booth 9—The Mara Laboratories, Inc., Harrison, N. J.—The Mara Laboratories, Inc., of Harrison, New Jersey, will display two groups of pharmaceutical preparations. One group consists of items specially adapted for use by the Pediatrician and the other finds broad use in the general practice of medicine.

Booth 10—Medco Products Co., Tulsa, Okla.—Your meeting is one of more than 60 state, sectional and national meetings where more than 90,000 physicians in 1951 will have an opportunity to see the very interesting *Medcotronic* low volt generator. Make it a point to visit our booth where our representative will be glad to demonstrate the *Council Accepted Medcotronic.*

Booth 11—Wyeth Incorporated, Philadelphia—Your Wyeth Representatives will be on hand to welcome you to the Wyeth exhibit, and to supply you with information and samples of many outstanding new and established ethical pharmaceutical preparations. Regardless of your specialty you will undoubtedly find many therapeutic agents suited to your particular practice from among the preparations listed in the Wyeth catalogue.

Booth 12—The Mennen Company, Newark, N. J.—The Mennen Company will exhibit *New Baby Magic—Skin Care,* famous *Baby Oil* and *Baby Powder, Mennen Castile Baby Soap* and *Baby Cream;* also, their fungicidal foot powder, *Quinsana, New-Spray Deodorant* for Men.

Booth 13—Winthrop-Stearns, Inc., New York, N. Y.—Doctors are invited to visit our booth, where the following products will be featured—*Sulfamylon,* new sulfonamide for topical use with wide antibacterial range (including anaerobes, gas gangrene); not inhibited by pus. Available as 1 per cent solution, and as 5 per cent solution in combination with Streptomycin (20,000 units); *Thenfadil,* a new and better antihistaminic which is exceptionally effective in bronchial asthma (82 per cent) as well as other common allergic disorders; *Levophed,* the true vasoconstrictor hormone of the adrenal medulla, for the maintenance of blood pressure in shock and other acute hypotensive states; *Neo-Synephrine Thenfadil,* nasal solution, potent vasoconstrictor with antihistaminic, for common cold, allergic rhinitis, acute and chronic sinusitis.

Booth 14—Gerber Products Company, Fremont, Mich.—Announcing - *Gerber's Rice Cereal.* This one-grain infant cereal is particularly hypoallergenic and distinctively acceptable to young infants. It is the ideal "starting" cereal. Ask the Gerber representative for literature and samples.

Booth 15—Baldwin Pharmacal Co., Inc., Newark—Products featured in the Baldwin Pharmacal Co. exhibit will include *Salpabate-C Tablets*—an effective antorheumatic, *Lipotab Tablets* — a Vitamin 'B' preparation for persons over 40 years

of age, *Manrucen Tablets*—a valuable adjunct in the management of the hypertensive patient and *Mycoderm Preparations*—for the prevention and treatment of fungus infections. A new preparation *A-T Gum*, containing Aspirin and Tyrothricin, will be introduced at this time.

Booth 16—Baby Development Clinic, Chicago, Ill.—The Baby Development Clinic will feature the psychologic aspects of feeding, as well as several products suited to infant and child feeding and care. The manufacturers of these products support the educational work of this organization.

The Baby Development Clinic will announce a new service to be known as the Maternity Counselling Service which will be of interest to doctors for their maternity patients.

Booth 17—Saratoga Springs Authority, Saratoga Springs, N. Y.—A new exhibit featuring rehabilitation and recreation at the New York State owned Saratoga Spa at Saratoga Springs, N. Y., has been especially constructed for this showing. Two panels list the types of mineral water treatments as they are given at the Spa and recreational facilities that are available. The beautiful landscape which prevails on the State Reservation is described in four large color transparencies. The New York State colors of blue and gold are carried out. Booth attendants will dispense naturally carbonated mineral water and literature.

Booth 18 — Lederle Laboratories Division, American Cyanamid Company, New York, N. Y.—Representatives who are prepared to give the latest information on products of the Lederle Laboratories Division of American Cyanamid Company, will be in attendance to extend a hearty welcome to physicians.

Booth 19—Carnation Company, Los Angeles, Cal.—"You are invited to visit the Carnation Company booth, where you will see an attractive display featuring colored translites of famous Carnation babies. Interesting information on the various uses of Carnation Vitamin D Evaporated Milk and the method by which Carnation Milk is generously fortified with Vitamin D—400 U.S.P. Units per reconstituted quart—will be explained. Valuable literature will also be available for distribution."

Booth 20—Eli Lilly and Company, Indianapolis, Ind.—Your Lilly medical service representative cordially invites you to visit the Lilly exhibit. In commemoration of the seventy-fifth anniversary of its founding, Eli Lilly and Company will display a statuary group dedicated to and symbolizing the cooperation between medicine, research and pharmacy. Many new therapeutic developments will be featured and literature on these products will be available.

Booth 21—Sandoz Chemical Works, Inc., New York—It is with a great deal of pleasure and pride that we invite you to visit our scientific exhibit at the forthcoming convention.

Our New Jersey representative will gladly welcome you.

Booth 22—Buffington's, Inc., Worcester, Mass.—Professional representatives will be in attendance at the Buffington booth to discuss the latest products with physicians.

A cordial invitation is extended to all.

Booth 23—Foen-Sanitex Company, New York—C. R. Sturm, Cliffside Park, N. J., Importer and Distributor of electro-medical equipment for over 35 years, will introduce and demonstrate the *"Sontor—B"* Ultra-Sonic Sound Wave machine, made abroad by one of the largest and oldest manufacturers of physio-therapy equipment after many years of extended and conclusive research and clinical as well as technical tests, attesting to the usefulness and remarkable beneficial results as obtained in Europe by leading instructions and physicians with this new therapy.

Be sure to call at our booth for a demonstration and literary proof of results with ultra-sonic sound wave treatments.

Besides the famous F. C. C. approved "Sanitex" line of Short Wave Diathermy machines and related products will be shown, attended to by Mr. A. Roberts, New York, N. Y.

Booth 24—Camel Cigarettes, New York — *Camel* Cigarettes will feature color slides of background data from their newest research. After weekly examinations of the throats of hundreds of men and women smoking *Camel* Cigarettes exclusively for thirty days, throat specialists reported "Not one single case of throat irritation due to smoking *Camels*".

Booth 25—Hoffmann-LaRoche, Inc., Nutley— Do you know why so many physicians and surgeons are talking about *Gantrisin*, the safer, single soluble sulfonamide? Have you seen the illustrations showing that *Gantrisin's* higher solubility obviates renal blocking . . . . or the clinical evidence of *Gantrisin's* wider antibacterial spectrum in systemic and urinary infections?

Representatives at the Roche booth will be pleased to discuss with you any questions you may have concerning *Gantrisin* or other Roche products. Clinical reports, descriptive literature and samples are available for your inspection.

Booth 26—The Coca-Cola Company, Atlanta, Ga.—Ice-cold Coca-Cola served through the courtesy and cooperation of the Coca-Cola Bottling Company, Atlantic City and The Coca-Cola Company.

Booth 27—Clark & Clark, Wenonah, N. J.— *Profetamine R Phosphate Chewing Gum* 10 Mg. (monobasic Amphetamine Phosphate, Racemic, United States Patent No. 2,507,468, No. 2,536,168) can be used to increase energy . . . elevate the mood . . . combat drowsiness . . . *or in the treatment of obesity.* Clark & Clark products are sold only through the medical profession. Trade packages and samples are available at the booth.

Booth 28—Nestle Company, Inc., Colorado Springs, Colo.

Booth 29—Bilhuber-Knoll Corporation, Orange, N. J.—For information on the recent developments of their original medicinal chemicals, such as *Dilaudid, Metrazol, Theocalcin, Octin,* etc., and the sedo-spasmolytic, *Valoctin;* and the well- tolerated antiasthmatic, *Quadrinal,* visit the Bilhuber-Knoll Booth.

Booth 30—Hanovia Chemical and Manufacturing Co., Newark, N. J.—Stop in to see Hanovia's new Short Wave Diathermy possessed of features that will be appealing to you. Also, see Hanovia's Fluro Lamp for diagnostic purposes, general body and orificial ultraviolet lamps, infrared and germicidal lamps. Competent representatives will be on hand to make your visit comfortable and interesting.

Booth 31—White Laboratories, Inc., Newark, N. J.—*Gitaligin*—which has been described as a ". . . . digitalis preparation of choice"—will be on display. Courteous Medical Service Representatives will appreciate the opportunity to discuss with you the clinical background and therapeutic merit of this and other outstanding White's products.

Booth 32—Bristol-Myers Company, New York, N. Y.—Bristol-Myers Company cordially invites members of the Society to visit its booth, where representatives will be in attendance to extend a hearty welcome to all visitors and to answer any questions pertaining to *Buffcrin, Sal Hepatica, Ammens Powder* and other famous products on display.

Booth 33 — Burroughs Wellcome & Co., (U. S. A.), Inc., Tuckahoe, N. Y.—Intermediate-acting *Globin Insulin* 'B. W. & Co.' will be a feature product. *Globin Insulin,* a clear solution which requires no preliminary shaking, is now official in the U.S.P.—the only intermediate-acting insulin to receive this recognition. Also featured will be *Perazil* brand Chlorcyclicine Hydrochloride. the chemically different antihistaminic distinguished by its long action and low incidence of side-effects; and *Empiral,* which combines the well-known analgesic action of 'Tabloid' 'Empirin' Compound with the sedative action of phenobarbital.

Booth 34—Coreco Research Corp., New York, N. Y.—The "Coreco" Automatic Color Camera is designed to photograph all surface areas of the body—from 1 to 1 close-up pictures to half-body size—and all cavities of the human body, such as mouth, throat, ear, nose, vagina and rectum. The camera carries its own specially developed, fully color corrected bulb and a mechanism for complete control of its color temperature and exposure within the camera itself. There is an automatic view finder synchronized with the automatic camera mechanism to permit viewing until a fraction of a second before exposure. The camera provides for automatic focusing.

Booth 35—Ortho Pharmaceutical Corporation, Raritan, N. J.—Ortho cordially invites you to visit their exhibit. The complete line of Ortho gynecic pharmaceuticals will be featured, including *Ortho-Gynol, Ortho-Creme,* and the *Ortho-White* Diaphragm.

Also on display will be *Masse* Nipple Cream for the treatment and prophylaxis of cracked nipples, and *Diffusin,* the Ortho brand of hyaluronidase. Ortho representatives will be on hand to greet you.

Booth 36—Schering Corporation, Bloomfield, N. J.—*Sulamyd* (sulfacetimide Schering) will be featured. From a pharmacological and toxicological standpoint, *Sulamyd* deserves preference over other sulfonamides now in use for the treatment of infections of the urinary tract.

Also exhibited will be *Sodium Sulamyd Solution 30 per cent* which has achieved and maintained a preeminent position because it is the only preparation which continues to meet all specifications for an ophthalmic antibacterial agent.

Trimeton and *Chlor-Thimeton,* two outstanding antihistamines and *Coricidin,* Schering's treatment for the common cold, will highlight the exhibit.

Schering Representatives will be present to welcome you and will be happy to answer inquiries concerning Schering's new products and other pharmaceutical specialties.

Booth 37—Smith, Kline and French Laboratories, Philadelphia, Pa.—*Resodec* is a revolutionary new development in the management of congestive heart failure. This remarkable substance produces the effect of cutting the patient's salt intake approximately in half. It does this by removing sodium from the contents of the intestinal tract and carrying it out of the body in the feces.

Thus, *Resodec* not only gives you a positive means of achieving *adequate* sodium control . . . but also frequently allows your patients greater leeway in selecting foods.

Booth 38—Holland-Rantos Company, Inc., New York, N. Y.—Ask H-R representatives: (1) why it is to your advantage and that of patients to specify *Koromex* Diaphragms, Jelly and Cream for dependable conception control; (2) why *Nylmerate Jelly* is so effective in treatment of vaginal trichomoniasis and moniliasis; (3) why other H-R products would be useful in your practice.

Booth 39—The Borden Company, New York, N. Y.—Borden representatives will be more than pleased to discuss a new powdered infant food with you. *Bremil* is a completely modified milk in which nutritionally essential elements of cow's milk have been adjusted to supply the nutritional requirements of infants deprived of human milk. Clinical, x-ray, and laboratory evidence with a large group of infants fed exclusively on *Bremil* proved conclusively its efficacy as an infant food. *Bremil* is a new phase in infant feeding. Likewise exhibited will be our long-established products for infant feeding: *Biolac, Dryco, Mull-Soy, Merrell-Soule Special Milks,* general purpose *Klim,* and *Beta Lactose.*

Booth 40—Brewer & Company, Inc., Worcester, Mass.

Booth 41 — The Liebel-Flarsheim Company, Cincinnati, Ohio — The Liebel-Flarsheim Company cordially invites you to visit its booth in which their latest diathermy and Bovie electrosurgical apparatus will be available for examination and demonstration. Capable representatives will be on hand at all times and we hope you will stop by so that we may become acquainted.

Booth 42—Philip Morris and Co., Ltd., Inc., New York, N. Y.—The results of research on the irritant effects of cigarette smoke will be shown. These results show conclusively that *Philip Morris* are less irritating than other cigarettes. An interesting demonstration will be made on smokers at the exhibit which will show the difference in cigarettes.

Booth 43—Ciba Pharmaceutical Products, Inc., Summit, N. J.—Ciba Pharmaceutical Products, Inc., Summit, New Jersey, invites you to visit its exhibit which will feature *Priscoline Hydrochloride*, an adrenolytic and sympathicolytic agent that produces peripheral vasodilation.

Representatives in attendance will gladly discuss the role of *Priscoline* in the treatment of peripheral vascular disease.

Booth 44—Pet Milk Sales Corporation, St. Louis —Specially trained representatives will be in attendance to discuss the use of *Pet Milk* in infant feeding, and to present many services that are timesavers for busy physicians. Miniature Pet Milk cans will be given to visitors at the exhibit.

Booth 45—The S. E. Massengill Company, Bristol, Tenn.—The Massengill exhibit will feature *Pascm Sodium* (brand of Sodium Para-Aminosalicylate), a chemotherapeutic agent for the treatment of tuberculosis.

Obedrin and the 60-10-70 basic diet for control of obesity will be on display, with patient diet pads available.

Also exhibited will be *Khelisem*, the crystalline glucoside visammin. Khelisem is the new treatment for angina pectoris.

Literature giving full details on these products will be available at the Massengill booth.

Booth 46—E. R. Squibb & Sons, New York— We look forward to seeing you at the coming meeting.

In support of the active scientific program which has been arranged, you will find the Squibb representative glad to discuss all relative products. Also, for your convenience, selected professional literature will be available which you may take or request us to send to your home.

Please visit the Squibb booth.

Booth 47—U. S. Vitamin Corporation, New York—See and taste for yourself the new and different sodium-free salt substitute — *Co-Salt* — which actually tastes like salt, looks like salt and sprinkles like salt . . . a great boon to your patients on restricted sodium intake.

Exhibit also features original, complete lipotropic therapy . . . *Methischol* . . . combination of five proven lipotropic agents: B_{12}, choline, methionine, inositol and liver extract. Therapeutically effective in the treatment of hypercholesterolemia as associated with atherosclerosis, coronary disease, obesity, diabetes and various forms of liver disease, including liver cirrhosis and toxic hepatitis.

Booth 48—C. B. Fleet Company, Inc., Lynchburg, Va.—Doctors are cordially invited to see the exhibit of *Phospho-Soda* (Fleet). *Phospho-Soda* (Fleet) is a solution containing in each 100 c.c. sodium biphosphate 48 gm. and sodium phosphate 18 gm.

Phospho-Soda (Fleet), over the years, has won discriminating preference by thousands of physicians—because of its controlled action . . . . its freedom from undesirable side effect—and its ease of administration.

There is only one *Phospho-Soda* (Fleet).

Booth 49—G. D. Searle & Co., Chicago, Ill.— You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be *Banthine*, the true anticholinergic drug for the treatment of peptic ulcers; *Dramamine*, for the prevention and active treatment of motion sickness; and *Alidase*, Searle brand of hyaluronidase which permits subcutaneous feedings at intravenous speed.

Other time proven products of Searle Research on which information may be obtained are Searle *Aminophyllin* in all dosage forms,*Metamucil*, *Ketochol*, *Floraquin*, *Kiophyllin*, *Diodoquin*, *Pavatrine*, and *Pavatrine* with *Phenobarbital*.

Booth 50—The Upjohn Company, Kalamazoo, Mich.—The Upjohn exhibit will present the anticoagulant family: *Heparin*, *Depo-Heparin*, and *Dicumarol*, with particular emphasis placed upon *Depo-Heparin*.

When heparin is prepared in a gelatin vehicle *(Depo-Heparin)* and administered intramuscularly, markedly prolonged effects are obtained. A single injection of 1 c.c. (200 mg.) of *Depo-Heparin* will prolong the blood coagulation time for about twenty-four hours.

Booth 51—Mead Johnson & Company, Evansville, Ind.—Mead Johnson & Company will feature *Lactum* and *Dalactum*, convenient formulas of evaporated milk containing Dextri-Maltose; three water-soluble vitamin preparations, *Poly-Vi-Sol*, *Tri-Vi-Sol* and *Ce-Vi-Sol; Fer-In-Sol*, a palatable, highly concentrated solution of ferrous sulfate, and *Poly-Vi-Caps*, multiple vitamin capsules for older children.

Representatives in attendance will be glad to furnish information regarding the above products.

Booth 52—Ayerst, McKenna & Harrison, Ltd., New York — Physicians attending the annual meeting of The Medical Society of New Jersey are

cordially invited to visit the Ayerst booth. Our representatives will be happy to answer your inquiries relative to *Premarin* and all other Ayerst specialties.

Booth 53—Cameron Surgical Specialty Company, New York—At the Cameron booth this year you may see the newest and finest electro surgical unit for major surgery, in the world.

A new rectal diagnostic outfit will be on display and the very latest in all electrically lighted diagnostic instruments.

The small electro-surgical unit (radio frequency) for office or small clinic weighs only 12 pounds.

The *Omniangle* gastroscope with coated lenses will also be shown.

Booth 54—Parke, Davis & Company, Detroit, Mich.—Medical Service Members of our Staff will be in daily attendance at our commercial exhibit for consultation and discussion of the various products listed in our Pharmaceutic, Antibiotic, and Biologic Catalog. Important Specialties, such as *Chloromycetin, Penicillin S-R, Benadryl, Vitamins, Oxycel, Thrombin Topical Influenza Virus Vaccine,* and others will be featured. You are most cordially invited to visit our exhibit with the assurance that your personal interest will indeed be very much appreciated.

Booth 55—The Wm. S. Merrell Company, Cincinnati, Ohio—For prompt, effective and comfortable relaxation of gastro-intestinal smooth muscle spasm Merrell presents *Bentyl* Hydrochloride.

Bentyl is a high milligram potency non-narcotic antispasmodic with two-fold musculotropic and neurotropic action. Effective therapeutically without atropine-like side actions on functional gastrointestinal disorders.

Bentyl is particularly suited for prolonged administration without habitation or increased tolerance.

Booth 56—General Electric X-Ray Corporation, Milwaukee, Wis. — A New Dual-Position Table, latest addition to the Maxicon line is on display at the General Electric X-ray Corporation booth.

The Dual-Position Table is equipped with a "top-up" top, permitting vertical and horizontal fluoroscopy in addition to the radiographic technics normally employed with horizontal tables.

The addition of this new member to the famous Maxicon line now puts at your disposal a more complete range of diagnostic x-ray apparatus. The popular component construction enables you to add unit by unit just as you need them — lets your x-ray facilities grow with your practice.

Either a 25MA or 100 MA generator can be used in conjunction with the Dual-Position Table.

Booth 57—South Jersey Surgical Supply Co., Red Bank, N. J.—The South Jersey Surgical Supply Company exhibiting for the third consecutive year, will again attempt to bring before the Physicians of the State of New Jersey, the latest in fine Medical equipment. It is their privilege to be the franchised distributors of *Allison Professional Suites; Continental X-Ray* equipment; *Burdick Direct-writing Electrocardiographs,* Diathermies, Ultra Violet Lamps; *McKesson* Basal Metabolators and Resuscitation equipment, as well as many other lines of Medical Equipment.

They will display the *Burdick-Direct-writing Electrocardiograph;* the *McKesson Metabolator* and the new *Continental X-Ray,* the latest and most modern designed X-Ray in the market today, one of the few X-Rays with interchangeable components.

Booth A—Chas. Pfizer & Co., Inc., Brooklyn, N. Y.

Booth B—Duncan C. McLintock Co., Inc., Hackensack, N. J.—Specializing In Pressure Bandages for the treatment of varicose veins, leg ulcers, etc., and burns. Products on display: *Dalzoflex Elastic Adhesive Bandage; Lestreflex Elastic Adhesive Bandage;* the *New Primer Bandage* and *Nulast Elastic Cotton Bandage.*

Also on display is the pain relieving *Polyestol Bandage,* a transparent elastomeric elastic bandage which releases Methyl-Salicylate for transcutaneous absorption.

Booth C—Lissco Medical Company, Inc., Newark, N. J.—Lissco Medical Co., Inc., one of larger supply companies of the state will exhibit at the convention again this year. Over the years Lissco has built up a reputation of having a very complete supply and service business for the profession. They represent practically every one of the older well known manufacturing companies in the equipment field as well as the medicinal and biological branches. The detail and service men as well as the owners will be present to greet you. They are sure to show some new items never shown before.

Booth D—Baby Service, Inc., Newark, N. J.—New Jersey's largest diaper service will once again be on hand to welcome the Doctors and their families to the 185th Annual Meeting.

As in the past it will be the policy of this company to extend greetings and an unusual surprise to the visitors to their booth. Everyone remembers the red roses presented to the Doctors' wives last year.

Baby Service places great emphasis on a conservative display and presentation relying on the reputation it has established with New Jersey Physicians.

Index to Annual Reports

THE MEDICAL SOCIETY OF NEW JERSEY ANNUAL REPORTS TO THE HOUSE OF DELEGATES

MAY 14, 15 and 16, 1951

PRESIDENT

ALDRICH C. CROWE, M.D., Ocean City

It has been said that the pleasure of anticipation can be exceeded only by the pleasure of recollection. If this is so—and I have little reason to doubt that it is—the years that lie ahead for me will be rich with many satisfactions, for my term of office as your President has afforded me much to remember with gratefulness and delight.

The chief source of general gratification to me as the President of The Medical Society of New Jersey has lain in the widespread constructive and cooperative good will that I have so regularly met with in those with whom my duties brought me into contact. I take this means of offering to all the members of the Society, and to all the many other individuals connected with organizations and agencies associated with our Society, my deep and sincere thanks.

I want particularly to commend the faithful and efficient work of the Welfare Committee under the chairmanship of Dr. Samuel Blaugrund, as well as the work of the four subcommittees and the numerous advisory committees. I point with pride and satisfaction to the organization and progress of the Committee on Civil Medical Defense under the chairmanship of Dr. Andrew F. McBride, Jr., and to the magnificently competent job done by Dr. William G. Herrman and his Physician Resources Committee.

As in past years, we are deeply indebted to the officers and members of the Woman's Auxiliary for their sterling assistance in advancing our general program and for the progress they have achieved in both the rural health and school health areas.

As President, I realize more than ever how heavily we of the Society depend upon all the members of our efficient and faithful staff. It is a pleasure to express appreciation to Dr. Henry A. Davidson and Mrs. Miriam Armstrong for the dependability and excellence of their work on THE JOURNAL. Only someone whose official position acquaints him with the myriad and complex activities of our State headquarters can understand how much we owe to the loyal and generous service of Mrs. Edith L. Madden, our Administrative Secretary, and her gifted and charming associates and assistants.

I am happy to record here for myself and for all of you the grateful esteem in which we hold Mr. James E. Bryan, who this year terminated his career of high service to the Society in the position of Executive Officer. In the three years of his connection with the State Society, its unusual progress and achievements have been due, in no small measure, to his splendid efforts.

It is likewise a great personal satisfaction to me to be able to give official welcome to the new Executive Officer, Mr. Richard I. Nevin, a man whose character and qualifications are such as to generate in all of us who have come to know him even briefly the most sanguine expectations for the good of the Society at his hands.

I want also publicly to acknowledge the vision and accomplishments of Dr. Joseph E. Mott, who has so swiftly and efficiently adjusted himself to the demanding duties of his temporary appointment as Executive Secretary to the Subcommittee on Public Relations.

And to Dr. Joseph F. Londrigan, Executive Secretary to the Subcommittee on Legislation, I wish to express our gratitude and satisfaction for a delicate and difficult job well done.

One fact is very clear to me. I have been exceedingly fortunate in the men who have shared with me the task of conducting the affairs of the Society. To all the members of the Board of Trustees and to all my fellow officers I say from my heart, "Thank you".

As I indicated in my inaugural message, we have continued the fight against compulsory health insurance; and the unmistakable index of the success of our campaign is the continuing expansion and development of voluntary prepayment insurance plans in New Jersey.

This year we were able to achieve a long-sought objective in obtaining from the Division of Motor Vehicles special "M.D." license plates for the physicians of our State.

With the establishment of the Executive Committee, I feel that we have taken a giant stride toward simplifying and speeding up the transaction of the business of the Society.

Through the creation of the Staff Policies Committee, we feel that we have also made a move that will guarantee for the Society a more orderly and efficient utilization of the abilities of our paid personnel.

Finally we have, I think, achieved a greater intimacy of contact and unity of action with all the component societies through the regular visitations of our junior officers. For their generous cooperation in effecting this progress, I cannot deny myself a special word of praise to Dr. Sigurd W. Johnsen, Dr. Harrold A. Murray, and Dr. Henry B. Decker. With Dr. David B. Allman, Chairman of the Board of Trustees, these men have been, at all times, a source of inspiration and inestimable assistance to me in furthering the interests of the Society.

There is today a widespread pessimism abroad in our country. It is attributable in large part to the cynical disregard toward duties and moral responsibilities manifested, with discouraging frequency, by those entrusted with public office. Certainly, in the light of recent disclosures, it is not lightly founded.

Nevertheless, I believe—and my experiences as your President are largely responsible for that belief—that there are throughout America men and women in great numbers, who are responsible, moral, able citizens, eager and determined to achieve the necessary decisions of our day by means of processes of justice, honor, and truth. I have heard their voices, as well as the voices of their sinister adversaries, in all the many conventions, conferences, meetings, and discussion groups of which I have been part. Their views are being proclaimed in the halls of government; in conventions, such as those of the A.M.A. in San Francisco and in Cleveland; in meetings of Chambers of Commerce; in conferences such as the Mid-Century White House Conference on Children and Youth. I know, for I have heard them.

And as a result I refuse to succumb to pessimism.

Let us instead rededicate ourselves to the principles and high ideals which are properly ours as good citizens and good doctors. Let us enlarge and unite our strength. Let us continue to work together, as in the past, but more earnestly and tirelessly. In this way, we can preserve and exalt our profession. In this way, as citizens of a worthy America, we can—and will—survive.

SECRETARY

MARCUS H. GREIFINGER, M.D., Newark

The work of the Secretary's office during the year has progressed smoothly. There have been inquiries from various sources for various types of information and these have all been acknowledged immediately and the information supplied when available.

It is encouraging to note that there is an increase in the number of active members at the close of the Official List on March 1, and that the number of delinquent members has dropped.

Active members—1951 Official List		4,720
Associate members—1951 Official List		149
Members deceased—March 1950 - March 1951		62
Transfers—March 1950 - March 1951:		
In from other States	36	
Out to other States	16	
Within the State	16	68
Resignations—March 1950 - March 1951		32
New and Reinstated members		139
Delinquent members (members in 1950 not paid at time of Official List closing)		575

Members who are delinquent in the payment of their yearly dues are automatically dropped from the rolls of the State Society. Their names are eliminated from the mailing list and their insurance contracts are jeopardized. Also, they must be members in good standing of the county and state society in order to carry active membership or fellowship in the A.M.A.

Your Secretary strongly urges each member to view his society dues as an obligation to be paid by January 1 of each year. Prompt payment will insure prompt reporting for the Official List and will eliminate any break in membership records and membership benefit.

TREASURER

GEORGE J. YOUNG, M.D., Morristown

CALENDAR YEAR
RECEIPTS

Cash on hand, January 1, 1950	$ 94,847.91
Receipts, January 1, 1950—December 31, 1950:	
Assessments from County Medical Societies	148,914.50
Journal Advertising—net	25,623.46
A.M.A. 1949 Assessments	7,950.00
Commercial Exhibits—Annual Meeting	11,008.50
Interest	191.17
Sale of Maternal Welfare Books	222.00
Refund of 1949-50 Budget Expenditure	1,143.16
Payroll taxes withheld from employees	6,345.84
Rents	864.00
A.M.A. Receipt for dues collection	738.75
Revenue Unexpected	714.50
Accounts Receivable	111.98
A.M.A. 1950 Dues	101,437.50
Claim damage to building	41.01
Sale of Office Equipment	155.00
TOTAL	$400,309.28

EXPENDITURES

Expenses, January 1, 1950—December 31, 1950:		
Budget Accounts		$ 97,646.19
Journal Publication	$27,967.68	
Commissions	2,127.18	
		30,094.86
A.M.A. 1949 Assessments		9,200.00
Annual Meeting Expenses		7,761.90
Permanent Home Account		12,691.13
Journal Advertising Agent's Commission		1,752.68
Dues Remission—1949		24.00
Dues Refunds—1950		210.00
Refund of Journal Subscriptions		6.00
Budget Account Expenses for 1949-50 fiscal year		776.58
Payroll taxes withheld		5,910.71
A.M.A. 1950 Dues		101,012.50
Refunds A.M.A. Dues		500.00
TOTAL		$267,586.55
Cash on hand, December 31, 1950		132,722.73
TOTAL		$400,309.28

ALLOCATION OF DECEMBER 31, 1950, CASH BALANCE

Unexpended Budget for 1950-51	$ 63,093.37
1951 Dues Unearned	5,225.00
Accounts Payable	956.80
Permanent Home Reserve	22,532.05
Annual Meeting Reserve	9,253.35
Retirement Pension Fund	15,000.00
Total Allocated Cash	116,060.57
Special Emergency Fund	5,000.00
Cash Surplus	11,662.16
Cash Balance, December 31, 1950	$132,722.73

FISCAL YEAR — 1950-1951

As the fiscal year does not close until May 31, 1951, the annual report cannot be submitted at this time. An interim report covering the accounts up to that time will be presented to the House of Delegates at the first session on May 15, 1951.

BOARD OF TRUSTEES

DAVID B. ALLMAN, M.D., Chairman, Atlantic City

All the actions taken by the Board of Trustees in the five regular and one special meeting held in the course of the year now closing have been recorded in the issues of THE JOURNAL and have thus been given to the attention of the general membership. In this report, therefore, it seems necessary and desirable to emphasize by specific mention only those items of particular significance.

DEATH OF DR. NORTON

In common with all the other members of the State Society and, indeed, with the entire medical profession, the Board of Trustees suffered a profound loss in the sudden death of Dr. James F. Norton, immediate past-president of The Medical Society of New Jersey, on September 27, 1950.

CIVIL MEDICAL DEFENSE

To insure efficiency in action in the field of Civil Medical Defense and cooperation with the State Civil Defense Organization, the Board of Trustees authorized the establishment of a special committee on Civil Medical Defense, whose members were to be appointed by the President.

PHYSICIAN RESOURCES COMMITTEE

The Trustees likewise authorized the establishment of a special committee on Procure-

ment and Assignment to screen and classify physicians for possible military or civil defense service. Subsequently the name of this body was changed to Physician Resources Committee.

JUDICIAL COUNCIL

The Judicial Council's recommendation to the county societies for enactment of a uniform by-law to implement the Society's program for adjudication of disputes and complaints against physicians was approved, together with a special budget allotment for expenses of the Council.

EXECUTIVE OFFICER

The Board accepted the resignation of Mr. James E. Bryan as Executive Officer of The Medical Society of New Jersey, to enable him to assume the position of Administrator of Medical-Surgical Plan of New Jersey.

Subsequently, the Board unanimously approved the appointment of Mr. Richard I. Nevin as Executive Officer, effective February 1, 1951.

STAFF POLICIES COMMITTEE

A special "Staff Policies Committee", was appointed by the Board of Trustees. It consists of three members; the Chairman of the House Committee, the Secretary, and the Treasurer. The Committee is to be available for advice or complaints on matters pertaining to staff policy, and it will be responsible for the definition of the duties and supervision of the activities of the various members of the staff.

EXECUTIVE COMMITTEE

The Board established an Executive Committee, consisting of five members: President, immediate Past-President, President-Elect, Chairman of the Board of Trustees, and one elected Trustee, to be appointed by the Chairman.

For the remainder of this administration, the Committee will be composed of the President, who will act as Chairman, the President-Elect, the First Vice-President, the Chairman of the Board of Trustees and one elected Trustee, to be appointed by the Chairman. Dr. Schaaf was so named by the Chairman.

SPECIAL COMMITTEES

CIVIL MEDICAL DEFENSE

Andrew F. McBride, Jr., M.D., Chairman, Paterson

The report of the Civil Medical Defense Committee can be considered a report on activities which have followed those of the Committee on Emergency Medical Services submitted to the Society at the last annual report. Shortly after the last Annual Meeting, the work of this committee became much more important than it had been previously due to the changing international situation in general, and in particular by the activities of the United States Government in Korea. Because of the change in importance of this committee's work, a lengthy report will be submitted. This committee has been in close contact with the officers of the Society, most of whom have served on the committee. In addition, the committee has reported directly to the Trustees during the past year. It has been in contact with the component county medical societies through a meeting held with the Welfare Committee and through directives addressed to the component county societies on several occasions. In the course of these activities, the name of the Committee on Emergency Medical Services was changed to the Civil Medical Defense Committee in keeping with the terminology adopted by the Civil Defense Plan of the State of New Jersey.

One orientation of the committee has been cooperation with national and state authorities. With regard to cooperation with national authorities, Dr. Gerald Sinnott went to Chicago to attend the National Committee on Emergency Medical Services in 1950. In July 1950, the officers of the Medical Society along with members of the committee accompanied Dr. Daniel Bergsma to a regional meeting of the Council on National Emergency Medical Services held in Washington, D. C. Since that time, the committee has attempted to accommodate its planning to conform with the material issued by the federal government.

The committee has cooperated with the State Civil Defense Plan actively. In June 1950, a subcommittee met with Mr. Leonard Dreyfuss, Director of the Civil Defense Plan of the state of New Jersey, and discussed the part which the State Society could play in the pro-

gram. The same group met with Dr. Daniel Bergsma, Commissioner of Public Health, later in Newark and collaborated on more specific plans for cooperation. The officers of the Medical Society, plus the members of the committee met with Dr. Bergsma to designate specific men to cooperate with Dr. Bergsma. Following this, members of the enlarged committee have held regular monthly meetings to act as an advisory group to aid with the planning of the state authorities. In addition, numerous special meetings were held.

In accordance with the New Jersey Civil Defense Plan, the Director of Civil Defense has a Technical Advisory Committee of which the Commissioner of Health is in charge of medicine and public health. The Commissioner of Public Health approached his part of the problem by dividing it into a planning and an operational phase. The planning phase was organized in four sections of which the section on Medical Services and the section on Hospital, Nursing and First Aid Services were of particular interest to the members of this society. Dr. Andrew F. McBride, Jr., was appointed chairman of the Medical Care Section and Dr. Gerald Sinnott was appointed chairman of the section on Hospital, Nursing and First Aid Services. The section on Medical Services was further sub-divided into committees on Radiant Burns and Radiation, Sickness Services, Traumatic Injury Services, Physician Resources Services and Integrated Local Medical Services. The personnel of these various subcommittees was recruited from The Medical Society of New Jersey. These sections in cooperation with the other sections of Dr. Bergsma's committee, made contributions to the plan which will be submitted to the Director of Civil Defense for the State of New Jersey. In the operational phase of the Civil Defense Plan, the personnel were suggested on the state, district and area levels to cooperate in the training and operational phases of the program. This part of the program is expected to take the dominant role as soon as the basic plan has been adopted by the Civil Defense Director.

One important phase of the planning activities has not yet been completed and at present has no prospect of being completed. Early in the program the needs of the national government for information about doctors relevant to their availability for the armed forces was so great that the entire profession was circularized by The Medical Society of New Jersey for pertinent data. Results of this circularization were highly successful, but it did not provide complete information with regard to how the men staying at home could be easily located in time of disaster. Specifically, it did not request the home and office phone numbers of all of the physicians throughout the state. The result has been that we have not been able to provide this information to the State Civil Defense Agency. The expense and effort to recircularize this group precludes that means of obtaining this information. Attempts to do it through the component societies has been unsuccessful thus far. Nevertheless it remains as an important item in planning for civil defense.

RECOMMENDATIONS

1. The committee recommends that The Medical Society of New Jersey continue to cooperate with the Civil Defense Authorities of the State of New Jersey both in an advisory capacity and in attempting to furnish personnel for the operational phase of the Civil Defense Plan.

2. It recommends that consideration be given to a plan whereby the names and the means of locating the physicians available for civil defense in time of disaster can be provided to the State Civil Defense authorities.

EMERGENCY EDUCATION PROGRAM

Harrold A. Murray, M.D., Chairman, Newark

Your Chairman, together with Dr. Aldrich Crowe and Dr. Marcus H. Greifinger attended the one day Cleveland session of the Education Campaign Committee. At this enthusiastic meeting, our campaign managers, Whitaker and Baxter, expressed their satisfaction with the efforts of the National Campaign Committee and the excellent results of the advertising campaign last fall.

A representative of Labor read a message from the Vice-President of the A.F.L. which concurred in our principles on National Health Insurance.

It was felt that during this coming year our Committee should meet with representatives of Labor on a friendly basis for the purpose of informing them of the A.M.A. philosophy about compulsory health insurance.

Though our opponents do not have a bill at present before Congress for a national health program, it was considered wise not to let down in our efforts to convince the public that any form of socialized medicine is not good for the people of the United States. To do this we must continue to obtain resolutions against compulsory health insurance from all lay groups. This we have endeavored to do and your Chairman has addressed several civic and lay organizations during the past year for this purpose.

It is most important that this Committee continue to function. Unless otherwise indicated, meetings will be called when necessary.

PHYSICIAN RESOURCES

WILLIAM G. HERRMAN, M.D., Chairman, Deal

The Chairman of this Committee was appointed by Dr. Aldrich C. Crowe August 20, 1950, at the time of an emergency meeting of the officers of the Medical Society and the Chairman of the Board of Trustees. This meeting was held subsequent to a conference on Governors Island called August 17 by General Shambora, Surgeon-General of First Army Area. It was a meeting of the officers of the medical, dental and veterinary societies of the eight states in the First Army Area. The Korean emergency and the urgent need for medical officers were the causes of the conference.

The Chairman was to select his own committee, except for the vice-chairman, who was to be Dr. Spencer Snedecor. Dr. Snedecor could not serve because of pressure of other duties. The Chairman felt, from personal experiences, that there should be a close liaison with civilian defense. Accordingly, I requested that those already serving as a Physician Resources Committee in the State Civilian Defense organization be appointed as the other members of this Committee.

The Chairman reported to Society Headquarters August 22. The only sources of information about individual status of New Jersey physicians available there were the "procurement and assignment" cards, now five years or more old, plus our own Society record cards which contained little information as to specialty, hospital connections or service records.

On September 12, post-card questionnaires were sent out. Follow-ups went out on October 16, and December 12, 1950. A total of 7360 original cards were sent, with a final return of 6578—a score of 89 per cent. Names of doctors were obtained from the following sources other than our own records: (1) county clerks' offices (2) hospitals (former interns and residents) (3) A.M.A. and Surgeon-Generals' offices of the various branches of the armed forces.

Returned questionnaires were tabbed by the office force as follows: county of residence; age group; reserve officer or not; medical occupation; physical disability, if any; essentiality so far as apparent to hospital, community or government, teaching or research; and priority under P. L. 779, i.e. I, II, III, IV and active service. At the time this report is written there are: 290 Priorities I and II; 1131 in Priority III and 2193 in Priority IV; 1064 were in the Reserves and 85 were in active service, leaving about 1815 in the non-available or overage group.

The questionnaire cards have been screened as to essentiality by (1) the Committee as a whole (2) each county advisory committee, as well as the Chairman and the office staff.

On Sunday, August 27 an emergency meeting of county society presidents and secretaries was called by President Crowe. At that meeting it was decided that each county society should appoint a county advisory committee to be consulted by the State Advisory Committee.

On October 7, Dr. Rusk, Chairman of the National Advisory Committee to Selective Service, appointed the Chairman of your Committee as Chairman of the State Advisory Committee to Selective Service, authorized under Public Law 779. Dr. C. P. Crowe of Orange, a dentist, and Dr. D. Bergsma, Commissioner of the Department of Health of the State were the other members. This was a national pattern. Since veterinaries were also included in the President's proclamation, your Chairman asked for the addition of Dr. J. R. Porteus to represent them. He also asked that Dr. L. S. Sica (Vice-Chairman of the Committee on Physician Resources of the Civil Defense) be named Vice-Chairman of the State Advisory Committee to Selective Service. Dr. Rusk concurred. The names of all county committee members were sent to Washington and these were confirmed. We now were "agents of

Government" as well as servants of the Medical Society.

In November the name of the Medical Society Committee was changed from "Procurement and Assignment" to "Physician Resources" Committee. Its members are: Dr. L. S. Sica, Dr. A. F. McBride, Dr. F. S. Taber, Dr. A. B. Kump, Dr. F. C. Bowers and your Chairman. These men also cover the four districts of Civil Defense.

The State Advisory Committee to Selective Service consists of: Dr. L. S. Sica, Vice-Chairman, Dr. D. Bergsma, Dr. C. P. Crowe, (D.M.D.) and Dr. J. R. Porteus (D.V.M.), and your Chairman.

Dr. C. P. Crowe has kept a separate list of the 3200 dentists and has largely handled his own problems among them. Dr. Porteus has catalogued 348 veterinary surgeons.

We have had only two Committee meetings. Each member of the Committee automatically receives copies of all important correspondence and all directives or bulletins from Washington. Each member is thus kept fully informed and has had an opportunity to challenge any action by the Chairman or office staff.

Fine cooperation has been received from Lieutenant Colonel O. E. Ursin, Executive Officer to the Surgeon-Generals' Office, Governors Island. So far as your Chairman knows, no reserve officer has been called for active duty without communication with this office. This action is official for Army, Navy, Air Force and U.S.P.H.S., except for organized units.

Expenses have been considerably over the $2000. appropriated. We were promised that expenses after October 7 would be met by the government. At a conference in Washington, January 12 and 13, (held at government expense) of all state advisory committees, it was stated that a lump sum payment would be made so as to cover past expenses. A few weeks later, a lump sum payment *was* made—to Selective Service. We received the usual form letter with a bundle of blank requisitions to be filled out for all supplies, equipment, travel, et cetera. We are now trying hard to find a way to recompense the Society for past expenditures. This was the intent of Dr. Rusk's remarks.

Your Chairman has made regular trips to the State Society Headquarters every Tuesday. Sunday conferences have been held with county chairmen and committees. Conferences have been held with Colonel Bloomer, Colonel MacGrath and Colonel Wagner. Meetings with other state committees have been attended at Cleveland and Washington. Our large correspondence with county chairmen, physician registrants, draft boards in the state and outside, other state chairmen, and hospitals near and far has been kept up to date. From the meetings and the correspondence, we would judge that New Jersey was among the first to send out questionnaires. We are as complete in records and work to date as any other state.

RECOMMENDATIONS

1. That the Physician Resources Committee be continued, to keep in contact with the State Advisory Committee to Selective Service.

2. That its membership, which is also the membership of the Physician Resources Committee of the State Civil Defense, be continued on the same basis. These men are responsible to Civil Defense for a continuing knowledge of physicians in their districts and are, therefore, the logical persons to be members of our Medical Society Physician Resources Committee.

3. County society secretaries should be urged to send in to this office regularly and automatically names of deceased members, new members, and where possible, new doctors in the community.

4. They should send any other information obtained regarding new hospital appointments or similar information that can be made a matter of record, so that we can keep up to date the information obtained on our questionnaires for the Physician Resources Committee.

5. Even though we are not a society of specialists, the information as to the specialty a man practices is very helpful to the officers and to the office staff in the selection of committee members and the assignment of tasks dealing with Society work, if nothing else.

6. Through the JOURNAL or otherwise, members of the Society should be encouraged to send in informative material about themselves. In fact, it is suggested that in the January JOURNAL each year a postal card be enclosed asking for information of interest dealing with appointments and honors received during the past months, just as some alumni associations do.

7. I further recommend that pertinent information from the questionnaires be placed on the individual membership record cards in the official file.

8. I recommended that where information is received about honors accruing to a member, the Secretary of the Society send the doctor a note of congratulations.

9. We should also have a record, not only of the medical college from which each member was graduated, but also of the academic institutions attended.

JUDICIAL COUNCIL

Vincent P. Butler, M.D., Chairman, Jersey City

At the Annual Meeting in 1950 two important changes in the By-Laws and Constitution, concerning the functions of the Judicial Council, were proposed. The changes in the By-Laws were adopted. Those in the Constitution will become effective if adopted at this meeting. With the change in the Constitution, the Judicial Council becomes the Judiciary Body of The Medical Society of New Jersey. Appeals from its decisions will hereafter be made to the Judicial Council of the A.M.A. and not, as formerly, to the House of Delegates of The Medical Society of New Jersey. With the change in the By-Laws, there is established a mechanism for handling and adjusting complaints against physicians for alleged unethical or unprofessional conduct. This is what is called, in many state societies, a "Grievance Committee". The Judicial Council is now charged with this responsibility, and it is now in operation.

Because this new mechanism of handling complaints could become completely effective only when all 21 county societies had established local committees, the House of Delegates directed the Judicial Council "as its first order of business during the administrative year of 1950-51 to draw up, in consultation with the legal counsel, a recommended set of uniform By-Laws providing for the establishment of county society Judicial Committees, which By-Laws will be proposed by the Judicial Council to the several counties." This directive has been carried out.

Further action by the House of Delegates provided "that on receipt of recommended uniform By-Laws, each county society take whatever steps may be necessary to adopt such By-Laws at the earliest possible date". At present, 17 county societies either have set up committees functioning in accordance with the proposed By-Laws, or are in the process of doing so. Cooperation of the county societies has been excellent. In different county societies the Judicial Committee is designated by different names, such as Grievance Committee, Ethics Committee, Censors, and the like. But the important matter is that there is, in each county society, such a Judicial Committee functioning and operating in conjunction with the Judicial Body of The Medical Society of New Jersey.

As presently operating, any aggrieved layman or doctor may present his complaint to either the Judicial Council of The Medical Society of New Jersey or to the Judicial Committee in the local county society. Should the complaint originate in the State Society, it will be referred to a District Judicial Committee. There are five such District Committees. Each District Committee is composed of two members from each county society in the District and the Judicial Councilor of that District, who is the chairman. It is the duty of the District Committee to investigate and determine the facts in the case, and, if possible, to settle the grievance or complaint between the persons involved, by conciliation.

Should the District Council find cause for disciplinary action, it then prepares a formal complaint in consultation with legal counsel. This complaint is presented to the county medical society Judicial Committee, whose duty it then becomes to pursue the action further. A report of the findings of the county Judicial Committee is then filed with the Judicial Council of The Medical Society of New Jersey.

Should the complaint first be received by the county Judicial Committee, one of two courses may be followed. The local committee have discretion to handle the case themselves. This would presumably be in a matter of not too serious a nature. They would so notify the Judicial Council. Should the case be one which the county Judicial Committee feel would be difficult or inadvisable for them to adjudicate first-hand, they would send it to the Judicial Council where the case would be handled in the manner described above, like one originating at the State Society level. Means are provided for appeals from the decisions of the county Judicial Committee or the State Judicial Council.

During the past year, considerable time and effort have been expended by the Judicial Council. Many meetings have been held and matters of great importance have occupied our attention. In consequence, the activities of the Judicial Council have been greatly increased over those of preceding years.

Recently the resignation of the Councilor of the Third District, Dr. Barclay S. Fuhrmann, has been accepted with regret by the Board of Trustees. Dr. Fuhrmann has asked to be relieved of his duties for reasons of health. He has given many years of splendid service to the Judicial Council. We shall sorely miss his sound judgment and advice.

Considerable assistance has been rendered by the Executive Officer and the members of his staff, and also by the legal counsel of The Medical Society of New Jersey. The Judicial

Council wishes to make grateful acknowledgment of this.

The level of ethical and professional conduct among the members of our Society is very high, and we have found very few cases where this is not true. However, this has not always been the opinion of some of the general public—for a variety of reasons—and on many occasions feeling aggrieved, they wish the satisfaction of a formal hearing. People have reacted very favorably to the fact that, through the machinery of the Council and its adjunct bodies, they can have their grievances considered and fairly dealt with. The procedure entails appreciable effort on the part of the Judicial Council, the District Councils, and the county Judicial Committees, but we feel that the advantages and satisfactions thus attained more than compensate for the efforts expended.

FIRST COUNCILOR DISTRICT

Union, Warren, Morris and Essex Counties

FRANCIS C. WEBER, M.D., Newark

Nothing was presented for adjudication in this district. There were a few meetings of the council at Trenton, all of which were attended by me. Details of these meetings will be reported by the chairman of the council.

SECOND COUNCILOR DISTRICT

Sussex, Bergen, Hudson and Passaic Counties

VINCENT P. BUTLER, M.D., Jersey City

Nothing of great importance has been brought to my attention during the past year.

The counties comprising this district have cooperated, and are now in the process of establishing local judicial committees.

THIRD COUNCILOR DISTRICT

Mercer, Middlesex, Somerset and Hunterdon Counties

BARCLAY S. FUHRMANN, M.D., Flemington

Your Councilor for the Third Judicial District has nothing to report for the year 1950-51.

FOURTH COUNCILOR DISTRICT

Camden, Burlington, Ocean and Monmouth Counties

DANIEL F. FEATHERSTON, M.D., Asbury Park

There being no specific matters relating to the Fourth District for the year 1950-51, the activity of the Councilor was confined to the meetings of the Judicial Council during the year.

FIFTH COUNCILOR DISTRICT

Atlantic, Cape May, Cumberland, Gloucester and Salem Counties

CHESTER I. ULMER, M.D., Gibbstown, N. J.

No matters of an ethical or judicial character were brought to the attention of the Councilor of this district during the year.

It would appear that the county societies in this district are functioning well and with harmony.

EXECUTIVE OFFICER

RICHARD I. NEVIN, Trenton

Inasmuch as at the time of compilation of this report I have held the position of Executive Officer of your Society for a little less than two months, the matters concerning which I can speak with first-hand knowledge are necessarily very limited. My chief activities thus far have centered about the endeavor to acquaint myself—as intimately and quickly as possible—with the complex organization and manifold interests and activities of the Society, as well as with all the many individuals and agencies through whose cooperation the objectives of the Society are realized.

From the very beginning of my association with The Medical Society of New Jersey I have observed, with personal profit and pleasure, the genuine and ungrudging generosity of service with which the officers and members of the Board of Trustees acquit themselves of their duties. As a matter of simple fact, it is

inspiring to work with such men, especially when one is advantaged by their patent friendliness.

Those same qualities of earnest devotion and friendly cooperation seem to characterize all the members of the various committees and subcommittees and to evidence themselves openly in the members of the executive staff. As one new to the scene and impersonal in viewpoint, I can report, with complete honesty, that within and throughout the entire organization of the Society there is a splendid esprit de corps that augurs well for progress and accomplishment.

In such contacts as up to this time I have made—in addressing and meeting with members of component county societies and the members of the Woman's Auxiliary; in working with the members of the Judicial Council, and the subcommittees on Legislation and Public Relations; in observing the functions of agencies such as the American Cancer Society, the Council for the Improvement of School Health Services, the Council of Social Agencies, and the like—it has always been impressive to me to perceive with what abiding earnestness of purpose the interests of the Society are regularly served.

Reporting on the activities of the Executive Office, I should like to pay tribute to the efficiency and unfailing dependability of Mrs. Edith L. Madden and her staff. Despite the handicap of a somewhat excessive turnover in personnel—arising out of the lively competition for able workers that exists in Trenton at this time—many exacting projects, over and above the basic routines of work, have this year been successfully carried out. Perhaps the most demanding of all the extraordinary office operations of this year has been the collection of the A.M.A. dues. There have been periods in the course of the year during which as many as six of our clerical assistants were engaged exclusively in this work. Supplying M.D. license plates to all who applied for them necessitated, in cooperation with the Bureau of Motor Vehicles, a painstaking check of approximately 5200 applications. The organization and operation of the Physician Resources Committee, beginning in early September, taxed the facilities of the office for some three months, in the course of which time over 7000 questionnaires were issued and dealt with.

As a consequence of the establishment of the Staff Policies Committee, we anticipate being able to assign more definite duties to each individual member of the staff, with resultant increase in its efficiency.

It has, in all, been a very lively and satisfactory year. If we can preserve and improve the spirit of high service to medicine which we have thus far together developed, and if we can bring the people of our state to see that all our activities subserve their interests, we can, I think, face the future without foreboding.

NOMINATIONS FOR EMERITUS MEMBERSHIP

The following nominations for election to Emeritus Membership at the 1951 Annual Meeting have been received from the various county medical societies:

Atlantic County—Dr. Albert Pilkington, Collingswood; age 78; retired because of age; county member 1920; member in good standing.

Bergen County—Joseph R. Helff, West Englewood; age 59; retired because of disability due to illness; county member 1925; member in good standing.

Erwin W. Reid, Garfield; age 63; retired because of age; county member 1915; member in good standing.

Frances B. Tyson, Leonia; age 76; retired because of age; county member 1918; member in good standing; nominated for A.M.A. Associate Fellowship.

Camden County—Beulah S. Hollinshed, Camden; age 72; retired because of age; county member 1908; member in good standing; nominated for A.M.A. Associate Fellowship.

Essex County—Dr. Jacob S. Wolfe, Bloomfield; age 86; retired because of ill health; county member 1930; member in good standing; nominated for A.M.A. Associate Fellowship.

Hudson County—H. Ameroy Hartwell, Weehawken; age 76; retired because of ill health; county member 1909; member in good standing.

Barnett Kooperman, West New York; age 60; retired because of ill health; county member 1917; member in good standing.

William Meyer, Union City; age 75; retired because of age and ill health; county member 1904; member in good standing.

Frank Pearlstein, West New York; age 68; retired because of ill health; county member 1919; member in good standing.

Mercer County—A. Dunbar Hutchinson, Trenton; age 77; retired because of age; county member 1900; member in good standing; nominated for A.M.A. Associate Fellowship.

Charles H. Mitchell, Trenton; age 74; retired because of age; county member 1901; member in good standing; nominated for A.M.A. Associate Fellowship.

Monmouth County — Harry B. Slocum, Long Branch; age 74; retired because of age; county member 1901; member in good standing.

Morris County—Dr. Marcus A. Curry, Mountain Lakes; age 72; retired because of age; county member 1911; member in good standing; nominated for A.M.A. Associate Fellowship.

Ocean County—Dr. Eugene G. Herbener, Lakewood; age 70; retired because of age; county member 1911; member in good standing; nominated for A.M.A. Associate Fellowship.

Passaic County—Dr. David J. Carlough, Paterson; age 82; retired because of age; county member 1923; member in good standing; nominated for A.M.A. Associate Fellowship.

Warren County—Dr. Floyd A. Shimer, Phillipsburg; age 71; retired because of ill health; county member 1905; member in good standing.

STANDING COMMITTEES

FINANCE AND BUDGET

DAVID B. ALLMAN, M.D., Chairman, Atlantic City

Any report of the Committee on Finance and Budget prepared for publication in the May JOURNAL must always be tentative and general in character. Only after completion of the fiscal year does it become possible to speak in precise and accurate terms of the year's finances.

The year now drawing to its close has been one of sustainedly lively activity for the Society. The many committees have functioned with vitality and efficiency — always safely within the limits of their budgetary allotments. The only unusual item of expense in the course of the year was occasioned by the establishment and maintenance of the Physician Resources Committee.

For the cooperation of all the agencies and individuals involved, your Committee on Finance and Budget expresses deep appreciation. From our point of view this has been a sound and satisfactory year, as we expect to demonstrate when the final budget is submitted for approval at the annual meeting of the House of Delegates in Atlantic City in May 1951.

PUBLICATION

J. LAWRENCE EVANS, JR., M.D., Chairman, Leonia

The year 1950 was marked by interesting progress for THE JOURNAL of The Medical Society of New Jersey. Comparison with figures for the year 1949 shows maintenance of THE JOURNAL's size and scientific aspects:

	1949	*1950*
Total No. of pages	1164	1148
Pages of advertising	592	560
Pages of scientific articles	338	305
Number of scientific articles	91	107
Number of book reviews	96	80

During the same period, overall costs of publishing were lessened slightly and revenue began to be increased as the result of new advertising rates. Thus, while in 1949 the actual net cost of THE JOURNAL was $5000 (about $1.00 per member) the net cost for 1950 was $3674, or only 71c per member. THE JOURNAL has in 1950 more closely approached being self-supporting than ever before.

The first four months of 1951, furthermore, demonstrate that our billing has increased $350 to $400 per month over the similar period of 1950. Though this increase is partly offset by increases in printing costs, we hope during 1951 to reduce the cost of THE JOURNAL to 60c per member. By May, 1951, all advertising contracts will be at the new increased rates. No advertising has been lost because of the moderate rate increase.

During the year, in addition to financial matters, your Publication Committee considered changes in format and the advisability of front-page advertising, both of which were unfavorably regarded.

Office and administrative expenses have continued to be unusually low for a periodical of our size. Cooperation between editorial and administrative staffs remains excellent. The Committee expresses its appreciation of the efficiency and interest of Mrs. Armstrong and Mrs. Madden, who have borne much of the day by day work of publication.

The Publication Committee solicits the comments of interested members of our Society, relative to THE JOURNAL at any time.

SCIENTIFIC WORK

W. W. MAVER, M.D., Chairman, Jersey City

The Scientific Work Committee was organized by The Medical Society of New Jersey many years ago and an attempt was made to revive its activities by Dr. Elias Marsh in 1942. The functions of the Committee as set forth in the constitution of The Medical Society of New Jersey are as follows:

1. To collect information through the county reporters or otherwise, of members who are prosecuting scientific researches or studies in the State, in hospitals and similar institutions, in schools, in public health departments or other agencies, or in private, or of any who wish to undertake such studies.
2. To give to our members through the JOURNAL information and progress reports on such work as is being carried on at specific places by identified individuals.
3. To facilitate the presentation of such work and its results, either (a) at the Annual Meeting, through the Annual Meeting Committee, or (b) in the JOURNAL, through the Publication Committee.
4. To provide contacts between individuals carrying on research projects in various parts of the State.
5. To stimulate the interest of all members in the State Society through calling to their attention the efforts made at various times by the specific individuals engaged in research, and the subjects in which they are currently engaged in study.

From a practical standpoint, it has been difficult to instill and maintain the necessary stimulation to obtain these objectives. Some factors believed to be responsible for the inactive state of the committee are the following:

The functions of the Scientific Work Committee are, to a large extent, dependent upon the activity of other groups in the Society for information on local matters of scientific interest. Most of the subjects of scientific interest are presented monthly to the membership of the Society in JOURNAL publications. In addition, the Program Committee arranges for the presentation of papers on scientific subjects at the annual meeting and the Committee on Scientific Exhibits brings to the membership an extensive and varied collection of exhibits composed for the most part by members of the Society at the Annual Meeting.

The committee has no specific recommendations to make to insure the successful continuation of the Scientific Work Committee. Perhaps, by the inclusion on the Committee of a younger group of men holding appointments in large teaching centers or affiliated with research groups, these men might be in a better position to help accomplish some of the ends for which the Committee was organized.

The problem of how to establish an effective and continuing liaison with the County Societies has not been solved.

A committee composed of five county reporters might be a practical solution as these men through their contacts with other reporters in their respective districts would be in a position to obtain first hand information on matters of scientific interest.

We hesitate to recommend discontinuation of the committee because this must be considered a regressive step. But consideration must be given to such a proposal if means of stimulating, developing and keeping active the Committee are not discovered.

WOMAN'S AUXILIARY

LEWIS C. FRITTS, M.D., Chairman, Somerville

The Woman's Auxiliary to The Medical Society of New Jersey has been very active during the past year conducting several different projects.

1. The Rural Health Program has operated throughout the state. Meetings have been held in various counties to improve the general understanding of this subject. Programs on cancer, safety and civil defense have brought in resolutions for voluntary health insurance.
2. The Auxiliary has been interested in scholarship programs and nurse recruiting.
3. The School Health Program has been given considerable publicity and interest has been shown in many parts of the state. It is recommended that the Woman's Auxiliary be congratulated for their interest and hard work in the welfare of The Medical Society of New Jersey.

ANNUAL MEETING

ASHER YAGUDA, M.D., Chairman, Newark

The success of any convention is based on the attendance at sessions and interest shown in the exhibits. Your committee, with the able assistance of its two subcommittees (Scientific Program and Scientific Exhibits) and the Sections Officers, has planned and arranged an outstanding program with eminent speakers.

Revenue from the commercial exhibits assures the financial success of the convention and enables us to support the scientific and educational exhibits, the section meetings, the printing and other expenses incident to the meeting. Members are urged to tour the exhibits and discuss with the exhibitors their products. The companies' representatives will be happy to inform you of their latest products.

The results of our combined efforts and the ultimate success of the annual meeting depend on the attendance of the members. We look forward to a new high in attendance.

SCIENTIFIC PROGRAM

JOHANNES F. PESSEL, M.D., Chairman, Trenton

This Committee calls to your attention the complete change in plan for the annual scientific program. In the past, each Section and specialty has had its own program. In recent years, criticism about this excessive specialization has been made. Because of this, your Committee is submitting an entirely different type of scientific presentation to the members at the 1951 meeting.

As noted in THE JOURNAL, we are attempting to present two main groups of topics: one listed under General Medicine, and the other under General Surgery. We have asked all groups to participate in the broader listing and stress topics of their own. This change has given us opportunity to invite many more outstanding teachers and clinicians for all to hear and enjoy. This type of annual program will aid the general practitioner in getting a greater over-all picture of what is going on in medicine and surgery at this time. It will also acquaint the rest of us in the specialties with advancements in other fields.

That we may not lose the identity of our various Sections, which should be encouraged, it was suggested that luncheons be arranged during the three meeting days by the specialty groups. This will give each the opportunity of discussing their own problems, continue their organizations and carry on any business pertaining to their groups. It will produce a more satisfactory and intimate sectional meeting.

It is our belief that the return of our State Society meetings to a broader base, including everyone, will improve our annual meetings and insure a greater attendance at these functions. We sincerely hope that our attempts will prove successful.

As Chairman, I wish to thank all the committee heads and personnel for aiding us in the arrangement of the program, and for procuring such an outstanding list of nationally known speakers.

SCIENTIFIC EXHIBIT

WILLIAM W. HERSOHN, M.D., Chairman, Atlantic City

At the 1951 Annual Meeting, the Scientific Exhibit will occupy the same floor space as last year. The number of exhibits will be comparable to 1950. With few exceptions they are all the work of New Jersey physicians and the subjects promise to be of great interest and importance to the practicing physician.

The practice of giving two classes of prizes will be continued this year.

Educational Exhibits had to be separated from the Scientific Exhibit because of lack of floor space.

MEDICAL DEFENSE AND INSURANCE

J. Wallace Hurff, M.D., Chairman, Newark

Since the fiscal year of the Medical Defense and Insurance Companies approximates the convention date our committee finds it impossible to make a complete report at this time. We will have our complete report available for our annual state meeting.

HONORARY MEMBERSHIP

Spencer T. Snedecor, M.D., Chairman, Hackensack

No nominations have been received by your committee for consideration of election to Honorary Membership in The Medical Society of New Jersey this year. If, between now and the opening of the 1951 Annual Meeting, any recommendations are received, your committee will give them immediate consideration and present a supplemental report.

WELFARE

Samuel Blaugrund, M.D., Chairman, Trenton

For many years, the Officers, Trustees, and the various Chairmen, and members of the subcommittees of the Welfare Committee, have been deeply concerned with the mechanics of transmitting information and responsibility from a state level to a local level. As a matter of fact, this has been a serious bottleneck, in the transaction of business of The Medical Society of New Jersey for years.

During the past year, efforts were made to correct this situation; and it is a pleasure to report progress in this important phase of our work.

Three important subjects: Physician Resources, Civil Medical Defense, and Public Health Week, represent the efforts expended by our committee in overcoming this bottleneck. The presidents, secretaries and chairmen of these special committees of the county medical societies, were personally invited to attend the meetings of the Welfare Committee, so that they might participate and hear at first hand these important discussions, and in this manner, take back to their component medical societies the information so earnestly sought by members of the county medical society. Further studies are being contemplated to increase the procedure of keeping members of the medical profession constantly informed of medical problems.

I express my appreciation to the officers, trustees and the members of all subcommittees for their cooperation and splendid efforts of keeping our membership *informed* on all phases of the problems confronting the medical profession of New Jersey.

SUBCOMMITTEES

LEGISLATION

C. Byron Blaisdell, M.D., Chairman, Long Branch

The Committee organized its work early in the current presidential year and has held several meetings, on occasions appropriate to the legislative scene in Trenton. Attendance at these meetings in Newark and Trenton has been excellent, with ample time given to discussion and deliberation.

The policy of inviting representatives of interested groups to meet with the Committee was again followed. Commissioner Bergsma helped us consider A-1, the Local Health Unit Bill; Civil Service, the chiropodists, psychologists, and opticians have met with the Committee, as well as submitting special material for consideration. The Welfare Bill, A-17, was discussed with a special committee consisting of Dr. J. Lawrence Evans, Dr. Irving P. Borsher and Mr. O'Mara, Counsel for The Medical Society, resulting in disapproval of the bill as written.

A new addition to the Committee's sources of information was made by subscribing to the State Service Bureau's *Legislative Index,* a copy of which has gone to each member every week of the State Legislature's sessions.

The A.M.A.'s Washington office has furnished timely and detailed information on congressional legislation, through its *Capitol Clinics* and *Bulletins.* Coverage has improved notably in the past two years, with additional organized activity and supervision from A.M.A. headquarters. As a result, it has been apparent that the State Society can depend on its national leadership at this time and work through and with it, rather than appear separately at the Washington hearings. A substantial budgetary saving has been effected thereby but for the present we do not recommend a reduction in our annual appropriation. An unexpended balance can always remain in the Society's treasury, whereas we do not know when it might be imperative that the Executive Secretary make a hurried trip to Washington or elsewhere.

In his capacity of Executive Secretary to this Committee for a second year, Dr. Joseph F. Londrigan has performed his duties capably and with increasing familiarity with the problems encountered. The county societies have been notified by him of any action needed pro or con on state legislation; numerous letters and telegrams have been sent to state senators and assemblymen. Our national legislators also have been kept adequately informed of the State Society's position with respect to matters like national health insurance, aid to medical schools, local public health units, and other bills. In addition, Dr. Londrigan has followed the state Legislature's meetings closely in Trenton, including public hearings and committee meetings. With the chairman, he attended a Middle Atlantic States Conference on public health and civilian defense in Philadelphia, also a meeting and dinner with the Essex County Medical Society's officers and legislators, both of which were informative as well as enjoyable occasions.

This report is of necessity incomplete since Congress and the New Jersey Legislature are still in session and have under consideration many bills in which we are interested. A supplementary report will therefore be necessary and will be submitted before the House of Delegates at the annual meeting in May.

MEDICAL PRACTICE

Albert B. Kump, M.D., Chairman, Bridgeton

The Medical Practice Committee has been active during the past year with several problems of importance to every physician in the state. All Advisory Committees have functioned willingly and have contributed greatly to the action of the Medical Practice Committee.

The question of hospital corporate practice as an impingement on private practice has been diligently studied and, due to the vast material accumulated to date, is still under study. Each Advisory Committee and its chairman are to be commended for the task they are carrying out.

The Medical Practice Committee, with the assistance of the Maternal Welfare Committee, has reviewed the interpretation of "compulsory consultations" in obstetrics. The conclusion reached is that an obstetrical consulta-

tion should be a formal consultation requested by the attending physician. It should consist of a personal examination of the patient by the consultant. Note should be made on the hospital chart of the findings and recommendations of the consultant. This is in keeping with the policies of the Medical-Surgical Plan of New Jersey.

The problem of group practice was reviewed by the Advisory Committee on General Practice. It was referred to the Subcommittee on Legislation. It is the opinion of the Medical Practice Committee that an Advisory Committee on Group Practice be established whose chairman should be a member of the Medical Practice Committee.

The Advisory Committee on Physical Medicine has formulated a complete plan for establishment of a Physical Medicine Department in hospitals. This comprehensive plan is a stride toward improved medical practice.

The Advisory Committee on Workmen's Compensation, under the guidance of Dr. Harryman, has studied numerous problems pertaining to industrial medicine and workmen's compensation. Their actions have been diligent and with initiation of their proposed recommendations will result in improved private physician, industrial and workmen's compensation relationship.

The year has been an interesting study of numerous problems rewarded by several specific recommendations for which we express gratitude to the advisory committees and their chairmen.

PUBLIC HEALTH

JOSEPH I. ECHIKSON, M.D., Chairman, Newark

The Public Health Committee has enjoyed a very active year. It has been the philosophy of this committee to cooperate with, coordinate and control the activities of lay organizations whose interest in public health appears to complement the activities of the medical profession. Too often these organizations in their enthusiasm go beyond the limits to which we feel they should confine themselves. They often invade areas which we believe should be controlled only by physicians. Too often this situation is created by the failure of our members to lend their full cooperation to these groups to the end that they may be properly guided in their work. As a result there have often arisen conflicts which could have easily been avoided had an exchange of ideas occurred in the early phases of the planning by these lay groups. It has been the attitude, therefore, of this committee to urge broad participation when requested by lay groups who are interested in proper quasi-medical problems.

It is to be hoped that the chairmen of the public health committees of the various county societies will be invited to attend meetings of this committee so that they may participate in the discussions with voice but without vote as a means of implementing the state programs. This will serve to bring closer liaison at all levels.

The details of the activities of the various advisory committees are presented herewith and indicate the broad scope of the problems considered by this committee. These reports indicate that the advisory committees have performed their jobs well. I take this means of thanking the members of all the advisory committees for their excellent work and particularly do I thank the chairmen for their advice and guidance. Their whole hearted cooperation has been a stimulus to the chairman. The wise counsel of Dr. Samuel Blaugrund, Chairman of the Welfare Committee and that of all the officers has been very reassuring. They have my sincere thanks.

PUBLIC RELATIONS

WILLIAM E. BRAY, M.D., Chairman, Pemberton

At the committee's organization meeting held on June 4, 1950, the principal points of the 1950-51 program were outlined as follows:

1. Health Education including radio and newspaper services.
2. Press conferences, county and state.
3. *News Letter* service and internal promotion.
4. Promotion of 1950 Public Health Week.
5. Liaison with Blus Cross and Blue Shield Plans.
6. Speakers' Bureau service.
7. Liaison with voluntary groups on a state level.

8. Revision of "Rainbow" folder containing the principal programs of the State Society.

Subsequent meetings of the committee, held on September 17, 1950, December 3, 1950, and March 4, 1951, were devoted to the organization, promotion and supervision of the program.

1. *Health Education:* This program of Health Education for the Public, established in former years was continued with renewed interest by this committee. It included *Health Hints,* a weekly health column, prepared and edited by The Medical Society of New Jersey, and distributed to all newspapers and industrial house organs as a public service, under the joint sponsorship of the local county and state societies. With the resignation of the Executive Officer in November, the work was carried on by the committee. To evaluate and to improve this service, a questionnaire was sent in January to the newspapers and house organs receiving the service. About half replied, and most of them favored continuing the service. We continued to prepare and send out *Junior Health Hints,* monthly to the 1600 classroom teachers who requested the service. To evaluate this, a questionnaire was forwarded to those on the previous lists. We received a 40 per cent response to this questionnaire, with the majority stating that this service was useful and should be continued. Many constructive criticisms were received; some of them were immediately adopted.

Radio sponsorship and promotion were studied. It was found that there was a decrease in the number of radio stations using the A.M.A. transcriptions available by request from The Medical Society of New Jersey. Six stations made use of the series in 1950; five stations are currently broadcasting the transcriptions. Since much of the promotion of this project has been handled by the Woman's Auxiliary, communications were sent out to public relations chairmen of the Woman's Auxiliary in various counties, in the hope of having radio stations in those places renew the A.M.A. Radio Broadcasts for 1951. This promotion is, and should be continued.

2. *Press Conferences (state):* Following the recommendation of last year's Public Relations Committee, a second annual statewide medical press conference was held in Trenton on October 20, 1950. The subject of the conference was, "Public Health Programs of The Medical Society of New Jersey".

Although acceptances had been received from 34 newspapers, the actual attendance was considerably less impressive. In addition to a representative from the Associated Press only 7 of the 29 daily papers were represented. Seven weekly editors were present, plus one representative of radio and television. In addition to the eleven members of the panel, conducting the conference, there were 23 doctors representing 14 counties, eleven representatives of state and county units of the Woman's Auxiliary, and three representatives of cooperating agencies, making a total attendance of 64 persons. This meeting was certainly not as successful as the first conference in 1949, despite the fact that preparations and promotional efforts among the medical profession were quite as extensive as last year. Probably one reason for the inferiority of the result was that the material presented was wholly constructive, containing practically no contentious items. Another factor was that the county societies did not accept this project as their own, and did not assist adequately in encouraging the attendance of the editors in their areas.

It was the general consensus of those in attendance that the conference should continue to be held annually. Promotional methods should differ, however, county societies should be encouraged to hold local press conferences as a preparation for an annual one.

The State Society and the Public Relations Committee owe a debt of gratitude to the members of the panel who fulfilled their responsibilities to the letter.

3. *County Conferences:* To stimulate interest in public relations at a county level, members of this committee were assigned to visit with the public relations committees of the counties. At these meetings the official objectives and policies of The Medical Society of New Jersey, were discussed. Special stress was placed on "emergency doctor service" and on county press conferences. It was found that most counties have an effective E.D.S. in operation, but press conferences on a county level were not being held in many counties. Very sucessful press conferences were held, however, during the past year in Passaic, Essex, Ocean and Salem Counties. At many of these conferences, the plan of adopting a "Code of Cooperation" similar to the Colorado Plan was discussed, but not adopted. The promotion of this idea should be continued.

4. *News Letter Services and Internal Promotion:* Monthly *News Letter* to members and *Quarterly News Letter* to cooperating agencies, prepared and edited by Mr. Bryan, were continued by Dr. Mott, who was appointed as part-time temporary Executive Secretary to the Public Relations Committee by the Board of Trustees on January 14, 1951. Up to that time Dr. Mott, served as chairman of the Subcommittee on Public Relations. In November, a new program was introduced to emphasize public relations activities. This was a monthly release to county society *Bulletin* editors, for publication in county bulletins. At this writing, five such releases have been prepared and sent out monthly.

5. *Promotion of 1950 Public Health Week:* This committee assisted the State Public Health Week Committee in promoting and publicizing Public Health Week, held in November 1950. The Executive Officer prepared and sent out weekly newspaper releases and feature health articles prior to the event. As part of the publicity, a meeting was arranged with the Public Health Week Committee at Governor Driscoll's office. Newspaper photos were made with the Governor proclaiming Public Health Week and signing the proclamation.

6. *Liaison with Blue Cross and Blue Shield Plans:* The merits and growth of the Blue Cross and Blue Shield Plans were publicized from time to time in the monthly *News Letter.* Speakers' Bureaus at a county level were encouraged to give talks on these topics.

7. *Speakers' Bureau Service:* In a further effort to stimulate interest in Speakers' Bureau and pub-

lic relations activities at a county level, this committee invited all county Speakers' Bureau heads and public relations chairmen to attend a dinner-meeting in Trenton on January 18, 1951. Our aim was to present an opportunity for the county PR men and Speakers' Bureau chiefs to meet with the state committee, discuss local problems and to hear qualified experts introduce new thoughts and ideas on medical public relations and speakers' bureau activities. Formal invitations were issued to 59 individuals, including the Associated Press, United Press and International Press. Forty-five attended. Reaction was favorable and the county men representatives were of the opinion that this should be an annual event to bring the counties in closer cooperation with the State PR Committee's activities and plans. Your committee strongly recommends that this type of meeting be held annually.

8. *Liaison with voluntary groups on a state level:* Your committee cooperated with voluntary groups whenever the opportunity presented itself. Several *Health Hints* were devoted to the work of voluntary health groups and announcements were carried in the *Monthly News Letter* from time to time.

9. *Revision of "Rainbow Folder":* A new and revised edition of this colored folder, originally prepared in 1948 was brought out and distributed to secretaries and PR chairmen of all the county societies. The subjects briefly discussed in this folder are:

1—Public Relations is Public Service
2—County and Local Health Councils
3—"Round-the-clock Emergency Service"
4—Press Relations
5—Cancer Control Program
6—Health Education for the Public
7—Speakers' Bureau Service
8—The Four Point School Health Program
9—Medical Care for the Needy
10—Rural Health Education
11—Socialized Medicine—The Word and the Deed.

10. *Other Items:* On January 29, 1951, your temporary Executive Secretary to the Public Relations Committee and the newly appointed Executive Officer, Mr. Richard I. Nevin, met with Lawrence W. Rember, Director of the Department of Public Relations of the American Medical Association. The meeting was devoted to an exchange of ideas concerning medical public relations plus a report of the program of public relations committe of The Medical Society of New Jersey. As an indirect result of this meeting a Public Relations Conference has been planned for May 14, 1951, at Haddon Hall, Atlantic City, to which will be invited all county society officers and PR chairmen, including the Woman's Auxiliary, and all State PR Committeemen, including the Woman's Auxiliary. The conference will consider one problem, "Public Relations". Lawrence W. Rember will deliver the principal address.

11. *Relations With Woman's Auxiliary:* The Public Relations Committee has approved plans of the Woman's Auxiliary for a public meeting to be held in June when a program will be presented to stimulate further activity and interest in Health Councils and Civilian Defense.

This committee congratulates the Auxiliary on their constructive work in the Rural Health Education Program and Four Point School Health Program, as well as other activities. We are grateful, too, for their assistance in promoting the use of the A.M.A. radio programs and in helping us with other public relations activities.

Your chairman extends his most grateful appreciation to the members of the State PR committee who attended the meetings regularly and extended their valuable aid in promoting the public relations program in its entirety.

RECOMMENDATIONS

The Public Relations Committee recommends:

(1) That instead of another statewide press conference in the fall of 1951, The Medical Society of New Jersey sponsor a combined press conference and County Public Relations Chairmen and Speakers' Bureau Chairmen conference in January of 1952. This should be a well planned, well promoted dinner-meeting in Trenton.

(2) That each county society take a more active interest in the following:

1—Promotion of voluntary health plans.
2—Formation of County Health Councils.
3—County Press Conferences.
4—Planned publicity for handling the medical indigent at local level.
5—Increased publicity for local Emergency Doctor's Service.
6—Planned investigations in areas where physicians are needed.
7—Increased cooperation with Woman's Auxiliary in promotion of A.M.A. Radio Broadcasts.
8—Increased cooperation with Woman's Auxiliary in all Public Relations activities on local level.

(3) That the basic, normal public relations services of the Society be continued through 1951-52, including the *Membership News Letter*, the *Quarterly News Letter*, the weekly *Health Hints* service, the *Junior Health Hints* service to schools and the presentation of A.M.A. radio transcription through local radio stations.

(4) That a plan of closer cooperation with the Woman's Auxiliary be considered, reducing the present delay in offering some of the public relations activities to the auxiliary for promotion; and that the State Auxiliary PR Chairman be invited to attend each meeting of the Subcommittee on Public Relations.

(5) That a plan of cooperation between the press, radio, hospitals and medical profession be duly formulated and adopted by the subcommittee on Public Relations during the coming year.

MEDICAL PRACTICE ADVISORY COMMITTEES

ANESTHESIOLOGY

EDWARD T. LAWLESS, M.D., Chairman, Upper Montclair

The Advisory Committee on Anesthesiology held three meetings this year. It has confined its activity to the problem of corporate practice of medicine in this state. We have studied the rulings of the American Medical Association and the American Society of Anesthesiologists on this subject and have submitted recommendations to the Board of Trustees of The Medical Society of New Jersey. It has been urged by the Board of Trustees that the specialty societies of the state concerned in hospital-physician relations draw up arrangements for payment of physicians and then submit their plans to the State Society for consideration.

After consultation with the New Jersey State Society of Anesthesiologists and in conformity with the rulings of the American Medical Association the following policy is submitted:

The physician-anesthesiologist should conduct his practice on a private fee basis. The overall policy should be that it is unethical for any practicing physician-anesthesiologist to enter into a relationship with any hospital, corporation or lay body which enables it to offer his services for a fee. In insurance or other prepayment programs, hospital service contracts should provide for hospital services only: medical service contracts should provide for medical and surgical services. Hospital services ought not include the administration of anesthesia by a physician. This has been defined by the American Medical Association as the practice of medicine.

No stigma should be attached to any physician because of his financial arrangements existing at the time of the adoption of this policy provided an honest effort is being made by the doctor to change his existing commitments to comply with this statement of policy. After the adoption of this policy any physician entering into such financial arrangements with a hospital or corporation does so at the risk of being declared unethical by the specialty, local or state societies.

The Advisory Committee on Anesthesiology has recommended that The Medical Society of New Jersey initiate a campaign to educate the doctors, hospitals and the public on the proper standards of medical practice and the dangers inherent in impersonalizing the practice of medicine by delegating control to a lay institution. We recommended that The Medical Society of New Jersey be vigilant to detect and correct violations of ethical standards before harmful customs can become established. We recommend that the Society do all in its power to end the practice by which hospital service insurance contracts provide payment for the administration of anesthesia by a physician.

CONTRACT PRACTICE

ANDREW C. RUOFF, M.D., Chairman, Union City

This Committee has not been called upon by your President or any of the Society's regular committees for advice or assistance in connection with any matter concerning contract practice, during the present year. However, I have attended most of the meetings of the Subcommittee on Medical Practice, and have participated in that Committee's deliberations. It has been my privilege to serve and to try to assist in whatever small way was possible to formulate some of the policies of the Society during the past year. Organized Medicine does require the composite effort of all of its membership, and in the ultimate, it is the composite of team work on the part of committee members in bringing about a cohesion which tends for the general welfare of the entire profession.

GENERAL PRACTICE

D. Ward Scanlan, M.D., Chairman, Atlantic City

The Advisory Committee on General Practice met the week before each Welfare Committee Meeting, except before the last Welfare Meeting; the reason for not meeting at this time was the fact that the Committee had completed its work for this year. The meetings were well attended and an active interest was shown by all members present.

1. The Committee investigated the relationship of the general practitioner to the hospital.

2. They discussed at length an interest in the G.P. relationship to industrial medicine, particularly compensation work.

3. The Committee recommended that G.P.'s as well as specialists be elected to A.M.A. House of Delegates.

4. The Committee recommended a survey of the hospitals of New Jersey to determine the relationship of the G.P. to the various services.

5. We hope that each county society will appoint a Compensation Committee to settle disputes or differences between the assurer and the physician.

The result of the work of this Committee for the past year through the Welfare Committee is as follows:

1. The recommendation for investigation of problems connected with assuring hospital affiliations for G.P.'s was received and filed by the Board. With the open hospital system in our state, there is no major problem along these lines.

2. The recommendation for better representation of the G.P. at the national level in the A.M.A. House of Delegates was tabled by the Board. A.M.A. Delegates are elected by the House of Delegates and do not represent any specialty.

3. The recommendation that each county society appoint a Compensation Committee whose function it will be to settle disputes or differences between the assurer and the physician was approved. A communication to this effect will be sent to the county medical societies.

LABORATORY MEDICINE

Asher Yaguda, M.D., Chairman, Newark

The Advisory Committee on Laboratory Medicine has, for the past few years, been concerned with legislation for the control of lay laboratories and of clinical pathologists by the State Board of Medical Examiners. The subject was explored with the representatives of the American Chemical Society and the American Society of Clinical Biochemists as well as with New Jersey organizations interested in this legislation. No legislation was introduced this year in order to allow sufficient time for study of our proposed bill by the American Chemical Society. It is hoped that agreement, at least in principle, may be reached in the near future. In any event, your committee intends to present its bill to our Subcommittee on Legislation for introduction next year.

The committee is also working on the implementation of the agreement between the hospital administrators, morticians and pathologists on the subject of postmortem examinations.

No recommendations are indicated at this time.

NURSING AND NURSING EDUCATION

H. Wesley Jack, M.D., Chairman, Camden

The nursing situation throughout the state was high-lighted by a survey which was made under the auspices of the New Jersey Nurses Association, conducted by Miss Abdellah, showing the needs of the professional registered nurses, and the practical nurses, in caring for the sick in the home and hospital, in the counties of New Jersey.

The situation is one that requires careful planning, and must be instituted on a firm basis. The New Jersey Hospital Association and our Medical Society have endeavored to assist in this program, especially furthering the recruitment of nurses in the areas where nursing is so sorely needed.

At present, only the New Jersey state vocational schools have been able to establish training schools for practical nurses. Plans have been formulated to use the vocational schools in Atlantic City and Camden, for further training of practical nurses. It is hoped that a program can be consummated for the training of registered nurses under the sponsorship of Rutgers University.

PHARMACEUTICAL PROBLEMS

John L. Varriano, M.D., Chairman, Jersey City

Three meetings of the committee were held during the year. These were joint conferences with the Committee on Professional Relations of the State Pharmaceutical Association.

The formation of joint committees at the county level has been promoted with success. Meetings of both professions have taken place in most of the counties. The active cooperation of the state and county pharmaceutical associations was enlisted in the campaign against compulsory health insurance.

The sixth Revision of the *New Jersey Formulary* has been completed and a copy has been mailed to every physician and pharmacist in the state. It is a completely new edition with numerous deletions and additions so as to bring it up to a highly scientific basis.

The chairman is appreciative of the efforts of individual members of the committee and wishes to take this opportunity to thank them.

PHYSICAL MEDICINE

Elmer J. Elias, M.D., Chairman, Trenton

During the year your committee has worked on a revision of the "Suggested Organization of a Physical Therapy Department in a General Hospital" adopted by the House of Delegates in May, 1940.

The revision below was presented to and approved by the Welfare Committee in March 1951.

To make expert services and equipment available at a moderate cost to the patient, to preserve the patient-physician relationship and also the physician's interest in the department, and to assure the hospital's interest in the department, your committee will present definite recommendations after further study and investigation.

Organization of a Physical Medicine Department in a General Hospital

The department of Physical Medicine and Rehabilitation is a service department similar to x-ray and clinical laboratories in the hospital and should be prepared to assist in the treatment of patients with chronic diseases and disabilities.

DIRECTOR

The director must be qualified to evaluate all cases referred to the department, determine the feasibility for rehabilitation, outline the program of treatment and visualize the ultimate objectives gained by the therapy. He should advise the hospital staff of the policies and duties of the department in order to obtain mutual cooperation and understanding.

He should either be a diplomate of the American Board of Physical Medicine and Rehabilitation or a reputable physician primarily interested in this field of medicine.

THE STAFF

The selection of the departmental staff should rest with the director. The group should be headed by a chief technician responsible to the director for all activities within the department. Subdivisions within the department may consist of occupational speech, physical and correction therapy.

Technicians allocated to these subdivisions will be so assigned because of their fitness for the particular type of work. All therapists should be registered in their associations. They should be full time hospital employees. Whenever necessary, a part-time assistant may be employed as secretary, social worker, volunteer aides, et cetera. One physical therapist is capable of treating 12 to 15 patients per day.

EQUIPMENT AND SPACE

The American Hospital Association considers that 536¼ square feet for this department is the desir-

able floor space for a 50 bed general hospital; 891 square feet for a 100 bed hospital; and 1449 for a 200 bed hospital. All doors and corridors should be wide enough to accommodate wheel chairs and carriages. The waiting room should be of sufficient size to accommodate the required number of patients.

An office should serve as a consultation room and examining room. It could also serve as a testing room in the absence of the physician.

The exercise room or gymnasium of sufficient size to accommodate 8 to 12 ft. parallel bar, a flight of steps, gymnasium mats; space for gait training. Floor covering should be dry and skidproof. Therapy booths should be large enough to accommodate a wheel chair, stretcher or other large piece of equipment and with easy access to the treatment table. A curtained cubicle maintains greater flexibility. The hydro-therapy room should have privacy. Hot water at adequate pressure should be assured. The flooring of this area must be considered from the standpoint of water proof and skidproof. Electrical outlets should be 3 to 4 feet from the floor.

All physical therapy apparatus should be of the type accepted by the Council on Physical Medicine and Rehabilitation of the American Medical Association.

RECORDS

The records of the department should consist of treatment charts, muscle testing sheets, range-of-motion sheets and activity rosters for daily living sheets. These should become a part of the patient's chart. Duplicates should be kept in the department with cross references listing patients' names or diagnoses as desired.

ECONOMIC RELATIONSHIPS

Ownership of all equipment is vested in the Governing Board of the hospital. There must be complete understanding between the hospital governing body and the medical personnel to assure the type of coordination of effort which will result in an effective department. Misunderstanding in this relationship is not uncommon at present.

Three types of economic relationships are in common use:

1. A director on a salary.
2. The director charges professional fees to private and semi-private patients. Clinic and ward cases are treated free in the department.
3. The hospital makes its own charges to the patients, and employs technicians with or without a "nominal" medical director who receives no remuneration.

There are objections to all three arrangements. A salaried director has no incentive to do excellent work and the department stagnates. The hospital is accused of practicing medicine and of using fees collected in the Department of Physical Medicine to offset deficits in other departments. In the second arrangement the physician is accused of using hospital equipment for his private profit, and the hospital becomes disinterested in improvement or progress. The third arrangement is mentioned only to be condemned. In modern physical medicine there is no technician competent enough to be in charge of a department nor any physician unless he has specialized training. The practice of putting these departments in "nominal" charge of untrained physicians should be severely condemned.

Historically, clinics were set up to care for indigent patients with the physician giving his services free. In his own private office he treated his paying patients. In physical medicine such an arrangement is almost prohibitive due to the high cost of equipment and extensive, expensive personal service. With duplication of equipment in the hospital and in the physician's private office, the cost to the patient becomes unbearable and the service does not come within his economic reach.

RADIOLOGY

JOHN LEWIS OLPP, M.D., Chairman, Tenafly

The committee held four meetings during the past year, two of which were joint meetings with the Executive Committee of the Radiologic Society of New Jersey.

The "Report of the Committee on Hospitals and the Practice of Medicine", as approved by the House of Delegates of the American Medical Association in June 1950, was endorsed and considered basic and practical.

The Radiological Society of New Jersey submitted a letter to our Hospital Relationships Advisory Committee, stating that "As a group, radiologists are dissatisfied with their relationship to hospitals". The inclusion of x-ray services in Blue Cross Plans was considered a handicap in contractual negotiations of radiologists and hospital boards, the latter favoring, and often insisting on, salary arrangements. The Society listed desired types of contracts.

The failure of Blue Shield Plans to include radiologic and all other medical services, and the continued sale of certain medical services by the Blue Cross, as the agent of the Hospitals, will only increase, in our opinion, the prestige and power of the latter in the eyes of the public. This division of coverage of medical services confuses the public and most subscribers.

The inclusion of x-ray and fluoroscopic ex-

aminations in the contract of the Hospital Service Plan of New Jersey was condemned as the corporate practice of medicine.

Hence, the committee submitted a resolution advocating removal of *all* medical services from Blue Cross contracts, and the inclusion of radiological services in the contracts of the Medical-Surgical Plan of New Jersey. The Resolution was approved by the Welfare Committee, but returned by the Board of Trustees without action.

In the matter of fluoroscopic machines in shoe stores, referred to us by the Public Health Committee, the committee studied the "Report of the New York Academy's Subcommittee on the Use of Fluoroscopic Machines in Shoe Fitting", dated March 7, 1950. This report was made by experts and we deemed further investigation needless and repetitious. The following recommendations were submitted:

"First, that the maximum allowable exposure be modified to conform with the latest recommendations of the National Committee on Radiation Protection; second, that the machines be fitted with automatic cut-offs to limit the exposure; and third, that a locking device be placed on each machine and access to it be permitted to only one responsible person, who must be present whenever the machine is used."

The above recommendations are concurred in, and the limit of exposure is set at two (2) roentgens. The value of employing fluoroscopic machines in stores as an aid to shoe fitting is questioned.

WELFARE SERVICES

Harold C. Cox, M.D., Chairman, Hightstown

Two subjects of primary importance have engaged the attention of the Advisory Committee on Welfare Services during the past year. Imprimis, an effort has been made to persuade each county medical society to provide medical and hospital service for medically indigent citizens, by the free choice, fee-for-service method as has been notably successful under the Newark plan. We have urged that each county society, as requested by the House of Delegates "appoint an appropriate committee to carry out the above plan of action, and to represent the county medical society in all matters of welfare and medical service, as well as to serve in an advisory relationship to the welfare authorities throughout the county in the administration of these programs."

The House of Delegates expressed its approval of this program, and furthermore agreed with the Advisory Committee on Welfare Services that local welfare authorities should purchase non-profit Blue Shield and Blue Cross insurance coverage for the medically indigent.

The necessity for obtaining general approval of this plan, and the inertia present in such a program will provide a difficult problem, if the plan is to be activated and is to go beyond the proposal stage.

The second subject revolves about a radical change in the manner of paying for medical services rendered to Old Age Assistance clients. The new Social Security Law (August 1950) has made it possible for Old Age Assistance authorities to pay physicians *directly* for medical services, rather than *indirectly* by paying clients an added grant to cover medical expenses. This change will be welcomed by most physicians. In many cases in the past, the money granted to the patient has been used for some other purpose and the doctor was not paid. However, the Division of Old Age Assistance of the State Department of Institutions and Agencies is so overburdened with work that it would like to reduce the bookkeeping and supervision required in administering the medical services. It asks our State Medical Society to cooperate in developing some plan whereby the office of the O.A.A. could be relieved of maintaining separate records and making separate payments. It has been suggested that some separate intermediary agency (such as the Medical Service Administration) might serve as the repository for funds that could be allocated for the payment of the doctor.

The Advisory Committee on Welfare Services recommends, therefore, that:

1. We strive to achieve the best medical service for the medically indigent on a fee-for-service, free choice of physician basis, preferably financed through Blue Cross and Blue Shield nonprofit insurance.
2. That we cooperate with the Division of Old Age Assistance to help reduce the administrative work of the department in providing care for the aged, and by developing a plan to allocate the funds necessary for the program.

PUBLIC HEALTH ADVISORY COMMITTEES

ADULT DISEASE CONTROL

CARLISLE MORRIS, M.D., Chairman, Metuchen

The committee has not been very active this past year. I have asked about printing abstracts of two papers that appeared in other journals and I hope that they will be published in the coming year in THE JOURNAL of The Medical Society. No special matters have been referred to this committee during the year for study and there have been no special activities.

CANCER CONTROL

WILLIAM O. WUESTER, M.D., Chairman, Elizabeth

During the past year the cancer control program has continued to progress. Through the cooperation of The Medical Society of New Jersey and the American Cancer Society, New Jersey Division, Inc., new avenues have been opened through which even better facilities for diagnosis and treatment are being made available to the cancer patient in this state.

For its notable program in the support of cancer clinics, the New Jersey Division of the American Cancer Society (for which this committee serves as an advisory committee) received the 1950 Cancer Crusade citation presented by the National society. The award was presented by Dr. Charles S. Cameron, Medical and Scientific Director and also vice-president of the American Cancer Society. In presenting the award, Dr. Cameron stated that "The signal success of the Cancer Control Program of the New Jersey Division is due in a large measure to the vision of its doctors and unstinting support of their lay colleagues".

The New Jersey Division of the American Cancer Society was incorporated in December 1945. At that time, the Advisory Committee on Cancer Control of The Medical Society of New Jersey was named under the division's by-laws as the Medical Advisory Committee for the Society. Since that time this committee has screened all proposals for medical projects for which the American Cancer Society's funds would be expended.

A total of $1,100,718 has been approved by the committee for expenditure by the county chapters of the American Cancer Society for clinic equipment, radon seed, medications, visiting nurse services and nursing and clinic help. An additional $53,749 has been approved for the new home care program. Care of the needy cancer victim is a feature of the program. A total of $209,187 has been allocated at state and county levels for this phase of the work since the division was organized.

Close cooperation between the laymen and the medical men in the cancer program has been due, in large part, to the definition of responsibilities by which each group clearly acknowledged its responsibility and defined its authority. By this formula, the two groups have been functioning well since 1945. Under this definition it is the responsibility of the laymen to raise the funds to be spent for cancer control program. During the past five years, over three and one-half million dollars have been raised by the American Cancer Society in this state. Of this, the New Jersey Division has turned over to the national society $880,000 for the national research program and $529,000 for national educational activities. The balance has been spent, or is being spent, for service and education projects in this state.

So much for a brief recapitulation of the program during the past five years. During the past year the clinic program (financed by the American Cancer Society) approved and sponsored by your committee has continued to receive the support of the physicians throughout the state. During the year, 41 clinics in general hospitals were supported financially by the New Jersey Division. This financial help is made possible under Part IV of the program

through which the cost of clerical and nursing overhead in clinics is underwritten in addition to the cost of certain diagnostic procedures. Monthly reports reveal that 20,000 visits were made to clinics by indigent or medically indigent patients during the fiscal year ending August 31, 1950. This represents a 21 per cent increase over the previous year. Of the 2046 new patients referred for examination, 827 were reported as positive cancer cases. This is a positive ratio of 41 per cent!

Clinics in the following hospitals are receiving financial aid from the American Cancer Society under Part IV.

All Souls Hospital, Morristown
Atlantic City Hospital, Atlantic City
Barnert Memorial Hospital, Paterson
Bayonne Hospital and Dispensary, Bayonne
Beth Israel Hospital, Newark
Bridgeton Hospital, Bridgeton
Burlington County Hospital, Mt. Holly
Christ Hospital, Jersey City
Cooper Hospital, Camden
Dover General Hospital, Dover
East Orange General Hospital, East Orange
Elizabeth General Hospital, Green Clinic, Elizabeth
Englewood Hospital, Englewood
Fitkin Memorial Hospital, Neptune
Hackensack Hospital, Hackensack
Hammonton Public Health Center, Hammonton
Holy Name Hospital, Teaneck
Irvington General Hospital, Irvington
Lutheran Memorial Hospital, Newark
McKinley Hospital, Trenton
Mercer Hospital, Trenton
Monmouth Memorial Hospital, Long Branch
Morristown Memorial Hospital, Morristown
Muhlenberg Hospital, Plainfield
Newton Memorial Hospital, Newton
North Hudson Hospital, Weehawken
Passaic General Hospital, Passaic
Paterson General Hospital, Paterson
Perth Amboy General Hospital, Perth Amboy
Presbyterian Hospital, Newark
Shore Memorial Hospital, Somers Point
St. Barnabas Hospital, Newark
St. Francis Hospital, Trenton
St. Joseph's Hospital, Paterson
St. Mary's Hospital, Hoboken
St. Mary's Hospital, Passaic
St. Michael's Hospital, Newark
Underwood Hospital, Woodbury
Warren Hospital, Phillipsburg
West Jersey Hospital, Camden
Newcomb Hospital, Vineland

On approval of the committee, the Home Care Program (Part V) was authorized by the American Cancer Society at its annual meeting last year. A limited portion of the funds available to each county chapter was allocated for this purpose. Reports indicate that 298 patients received financial assistance or that the family of the patient received guidance in the care of the terminal case during the first year of the program. The American Cancer Society has no intention of becoming a welfare organization since its principal purpose is to sponsor a nation wide research program to educate the public on the facts about cancer, but it will provide a limited amount of service to the patient within financial means available.

In addition to $48,000 allocated for the clinic program (Part IV) and $54,000 allocated for the Home Care Program (Part V) additional amounts were approved during the past year for other phases of the medical program as follows: Special Medications, $24,000; Visiting Nurse Associations, $46,000; Gold Radon Seed Pool, $7,500, and for miscellaneous items of clinic equipment $22,000.

The number of physicians who have expressed their willingness to conduct health maintenance examinations in their offices continues to increase. During the past year the list has increased from 1800 to 2000 physicians. This is encouraging and gratifying to those of the medical profession who have long held that the general practitioner is the keystone of the cancer detection program. The experience of our clinics reflects the cooperation of these New Jersey physicians.

In addition, the physicians of New Jersey have cooperated with the Society in accepting the chairmanships of our volunteer service and education program and have supplied professional speakers for meetings of laymen interested in the cancer program.

An important activity supported by the committee was the formation last year of a subcommittee on professional education. Outstanding in the subcommittee's program during the past few months was the holding of a cancer instititute for nurses at Princeton. Costs of the institute were financed by the American Cancer Society. The program was guided and directed by the medical members of the Professional Education Subcommittee. Over 900 registered nurses from all parts of the state attended this all-day session which was reported to have been the most successful program of its kind ever held in the nation. Great praise is due the subcommittee for its planning and direction of this institute.

During the past year, plans were formulated to establish a state-wide system of providing radio-active isotopes for diagnosis and treatment of New Jersey cancer patients. This received the approval of the U. S. Atomic Energy Commission and the central point of the system was established at the Newark Beth Israel Hospital in January 1951. Branch isotopes centers will be established in various

points throughout the state, within the next year. The system will provide radio-active iodine and radio-active phosphorus for treatment of cancer patients. Indigent or medically indigent cancer patients will be treated at the expense of the New Jersey Division.

During the monthly meetings held by the Committee, during the past year, 134 projects were received and screened for the various phases of the cancer program in effect in the 21 counties. The total dollar value of these projects was $207,269.

The continued assistance and cooperation of the laymen of the American Cancer Society is deeply appreciated by the Committee. Without the close working relationship between the physician and layman, which is so prevalent in this division, in this state, the progress which we have experienced in the last five years would not have been possible.

CARDIOVASCULAR DISEASES

JEROME G. KAUFMAN, M.D., Chairman, Newark

The Committee on Cardiovascular Diseases has completed a survey of the existing facilities for the diagnosis and treatment of heart disease, particularly as to available clinics.

The committee acts as an advisory body to The New Jersey Heart Association and has cooperated with that association in the inspection of cardiac clinics throughout the state. A thorough study of these clinics was made to determine if they met the required standards. When these clinics are approved a list will be published in our JOURNAL.

The committee has participated in the planning of the annual institute for heart diseases, which was held in Newark on March 21, 1951. This is part of the educational program which brings the latest advances in the subject to the practitioner.

The committee has approved the excellent teaching program given at St. Michael's Hospital, Newark, throughout the year, and has watched with great interest the development of the first group in the state for the surgical treatment of congenital and other cardiovascular diseases.

The committee is interested in the development of a program for the rehabilitation of the cardiac in industry. Such a program will be developed as soon as funds are made available.

During the past few years much progress has been made in New Jersey, in the field of cardiovascular diseases, and it is the hope of the Committee that further progress will be made.

CHEST DISEASES

ABRAHAM E. JAFFIN, M.D., Chairman, Jersey City

During the current year, the chairman of your Advisory Committee on Chest Diseases was unaware of any matters important enough to call for a meeting until attention was called to the fact that a number of schools were omitting the tuberculin test as a pre-x-ray screening procedure. A member of the Executive Committee, who was connected with the State Board of Education, reported that some physicians were advising the school authorities that the tuberculin test was unnecessary. Apparently they were unaware of the report of a previous Advisory Committee on Tuberculosis published in THE JOURNAL of The Medical Society of New Jersey, in January 1941. In that report, full details were made available regarding the various forms of tuberculin tests with particular reference to the advantages and disadvantages of each method.

Although more than ten years have elapsed since New Jersey, the first of all states, passed legislation requiring that all pupils and employees of the public schools must be examined for tuberculosis, there have been no changes in the recommendations then published.

It was therefore deemed advisable to call a joint meeting of the Advisory Committee on Chest Diseases and the Committee on Medical Affairs of the New Jersey Trudeau Society. This meeting was held on November 12, 1950, when the following fundamental facts about tuberculin testing in children and high school students were presented and discussed. Credit for many of the facts here listed must be given

to the Committee on Tuberculosis of the Minnesota State Medical Society and the Minnesota State Public Health Association. They have the support and endorsement of Dr. J. Alfred Myers, Professor of Medicine of the University of Minnesota.

FUNDAMENTAL FACTS
About Tuberculin Testing in
CHILDREN AND HIGH SCHOOL STUDENTS

1. There is no conflict between tuberculin testing and mass x-ray surveys—one supplements the other.
2. The tuberculin test tells us who has been infected.
3. The tuberculin test tells us whom to watch carefully.
4. The tuberculin test may lead us to a source of infection.
5. The tuberculin test alerts the positive reactor so that periodic x-ray examinations may be carried on well into adult life, thereby giving added assurance that should a destructive type of the disease appear later on, it will be found sooner.
6. A non-reactor knows that he or she does not harbor living tubercle bacilli in his or her body.
7. We do not discover tuberculosis as early by the x-ray as by the tuberculin test.
8. Even in tuberculin-positive students, the x-ray fails to reveal evidence of primary infection in more than 90 per cent of those x-rayed.
9. The prevalence of positive tuberculin reactions in high school students is now about 10 per cent.
10. Use of the tuberculin test as a screening measure before doing a mass x-ray survey will reduce the cost of x-raying by at least 90 per cent.
11. The Patch Test is sufficiently reliable and offers many practical advantages over the intradermal test in detecting existing infection with the tubercle bacillus.
12. The tuberculin test (either Patch or Intradermal) should be the first in searching for tuberculosis in children and adolescents.

These recommendations are intended to apply to surveys among children and high school students only and not to case finding procedures among adult groups. The committee recommends that adult personnel in all schools be x-rayed annually without previous tuberculin test.

Since the meeting, certain minor editorial changes have been found advisable. These, however, have not altered the substance of the recommendations. With the exception of these minor changes the above fundamental facts were approved on December 3, 1950, by the Welfare Committee and on January 14, 1951, by the Board of Trustees of The Medical Society of New Jersey.

In view of the fact that the request from the State Board of Education came to me through the New Jersey Tuberculosis League, the latter agreed, with the approval of the Medical Society, to issue the information in the form of a pamphlet as a guide for school physicians, school administrators and members of the Board of Education.

Your chairman is deeply grateful to the members of the Committee on Medical Affairs of the New Jersey Trudeau Society and those of the Advisory Committee on Chest Diseases for their valuable cooperation. I also acknowledge my indebtedness to Dr. W. Arkwright Doppler, Executive Officer of the New Jersey Tuberculosis League for the many hours he spent with me in preparing questionnaires that were sent to many of the leading authorities on tuberculosis in this country, and in shaping up the "guide" to be published.

CHILD HEALTH

F. W. Lathrop, M.D., Chairman, Plainfield

Principal accomplishment of the Child Health Committee this year has been the development of a pediatric consultation service now available for rural communities at the will of the county medical societies. A letter has been sent to the president of each constituent society explaining the operation of the service. Next step is up to the county societies. If they desire it, the Child Health Committee will provide the service.

This pediatric consultation service is a logical out-growth of the Child Health Survey conducted by the Academy of Pediatrics. The Survey brought to our attention the fact that patients in rural communities do not have the easy access to pediatric consultation available to urban citizens; and it indicated that the average general practitioner has had little real training in modern pediatrics. The consultation service will be not only a service to the community, but will also aid in graduate education. A similar service has been established in Michigan, and has proved very satisfactory to all concerned.

CONSERVATION OF VISION AND HEARING

Reinhold W. terKuile, M.D., Chairman, Ridgewood

The Committee has continued consideration of the problems of examination of vision and hearing in school children, with especial reference to the pre-school and kindergarten groups. If many of the defects of vision and hearing are to be properly treated, they must be detected at a much earlier age than at present. Visual and other eye defects in particular must be picked up before the fifth year of life. Two alternative plans have been considered:

(a) That the parents, on registering their children at the four and a half year age, should be told by the school authorities that they are to have their children's eyes and hearing examined before they enter school in the fall; and

(b) In schools where a spring or pre-entrance physical examination is customarily done by the school examiners, these examinations should include taking of vision and rough hearing test. Testing of hearing could be done by the simple watch test; vision could be adequately taken by the customary Snellen symbols. Neither test is to be construed as diagnostic, but simply to detect the presence of hearing or vision defects. Any child having either a hearing or vision defect is to be promptly and thoroughly examined by a competent medical specialist of the parents' own choosing after conference with their family medical doctor, or sent to a hospital clinic.

It is felt that adequate follow-up should be made to see that proper examination and treatment have been carried out. Special forms should be provided by the schools to be filled out by the medical specialist and returned to the referring school where it should form part of the child's medical record for future follow-up.

It is the opinion of this committee that the school visual and hearing examinations can be done adequately by the school medical staff, i.e. the school physician and the school nurse or nurses under his supervision.

Nearly all county medical societies have committees on conservation of vision which act as consultants to the society and to the school authorities. These committee chairmen will be kept posted on the activities of the State Committee so that better co-ordination may be obtained.

Several attempts have been made by lay organizations and non-medical groups to invade the field of school eye examinations. We have always opposed such attempts, feeling that these examinations are purely medical functions which should be kept under full supervision of the school physician. Should the latter need aid or advice, he has only to request this from the county medical society, which will direct its own committee on conservation of vision and hearing to furnish it free of charge.

In districts where the school facilities permit, an ophthalmologist and otolaryngologist should be employed by the city to aid in the school examinations and examine children referred by welfare organizations.

The importance of these early eye and hearing examinations on the future health and usefulness of nearly twenty per cent of all our children should not be lightly considered. The Committee proposes to proceed with this general plan without delay.

MATERNAL WELFARE

John D. Preece, M.D., Chairman, Trenton

In summarizing the work of the Maternal Welfare Committee in the past, we have taken for granted that the basic work of the Committee is well known and list merely the new projects on the itinerary for the year.

The Maternal Welfare Committee in conjunction with Dr. Levy and his staff of the State Child and Maternal Health Department study the report of each maternal death throughout the year in New Jersey. Two reports of each death are submitted. One is sent in by the physician in charge of the patient and another is submitted by the County Field Physician, appointed by the Committee, whose duty it is to study each case in his county and draw up a confidential report. From these case studies we draw up our annual reports, make judgments and direct our action.

The Maternal Welfare Committee has met as a group, four times this year. Each meeting was well attended and productive.

In addition, we have had representatives meet with other groups throughout the year. A meeting was held with the New Jersey Hospital Association members, representatives of the New Jersey Maternal and Child Health

Department and the Chairman of the Committee on Child Health of the New Jersey Medical Society. The objective was to set up a study of neo-natal deaths in the state, similar to the study now being done on maternal deaths by our Committee. This project is now being studied by the Committee on Public Health.

A meeting was held with the representatives of the State Department of Institutions and Agencies for final approval of a set of special regulations for maternity services.

We joined with the Academy of Medicine of Northern New Jersey to present a round-table discussion on the study of maternal deaths in New Jersey.

Through the Board of Trustees we have requested the Board of Health to do blood typing and Rh studies on all pre-natal patients.

The members of this Committee have been most cooperative and helpful throughout the year. The Chairman wishes to take this opportunity to thank them both collectively and individually.

MENTAL HYGIENE

Harrison F. English, M.D., Chairman, Trenton

The Advisory Committee on Mental Hygiene met on May 18, 1950, and on January 25, 1951.

The Committee has continued to advocate and foster establishment of psychiatric services in general hospitals. Although advance in this field has been slow and much educational ground work is needed, there has been definite evidence of progress. Three large general hospitals that are currently preparing to expand their facilities have announced their intention of having a psychiatric service.

All county medical societies have been reminded of the resolution of The Medical Society of New Jersey a few years ago asking them to hold at least one scientific meeting annually on the subject of neuropsychiatry. All county societies, with one exception, were able to report such programs. The one county society replying in the negative has been offered aid in arranging such a program.

Some progress has been made in the epilepsy program. This plan was approved by The Medical Society of New Jersey last year. The New Jersey Chapter of the National Society for Crippled Children and Adults has expressed interest and has offered to provide money to launch the Plan as soon as funds become available. In the meantime, a committee has been appointed to get this Plan started. This Committee consists of representatives of the State Department of Institutions and Agencies, the Medical Consultant of the Crippled Children's Society of New Jersey and the Chairman of the Advisory Committee on Mental Hygiene of The Medical Society of New Jersey.

Our committee approved a resolution proposed by the conference on the School Health Program (held under auspices of our Woman's Auxiliary) to the effect, "that the Woman's Auxiliary to The Medical Society of New Jersey establish a committee to foster the development of a specific mental health program for children of all ages and that this organization take the school mental health program to the citizens of the state". We are available to consider in an advisory capacity any mental health program for school children which the Woman's Auxiliary may formulate.

REHABILITATION

H. Eugene Reading, M.D., Chairman, Paterson

In June 1950, President Crowe authorized a change in the name of the Committee from that of "Advisory Committee on Crippled Children" to "Advisory Committe on Rehabilitation". This change is based on the fact that the conditions of crippling deformities, as concerns this Committee, are not necessarily limited to children.

In 1950 the New Jersey Legislature passed a bill making it mandatory that all cerebral palsy patients be reported by physicians to the local departments of health. This means that important statistical data will be available, not heretofore possible. Numerous children with cerebral palsy conditions have been known to be sheltered by parents from their neighbors,

thereby neglecting treatment at an early age which is so important in obtaining better results compared with treatment of these children starting at later ages. Any physician called in to treat such a child for some acute illness is serving an important duty in submitting the names of cerebral palsy patients to the health authorities. Treatment for cerebral palsy conditions is not mandatory but an intelligent social worker may help the frustrated parents of such children.

There is an increased trend toward establishing cerebral palsy clinics by privately interested groups under proper medical supervision. A new cerebral palsy clinic was opened in March 1951 in Ridgewood, N. J., on the site of the proposed Valley Hospital. The Passaic County Elks Cerebral Palsy Center, built with funds obtained by the three Elks Lodges in Passaic County through a public campaign, will be dedicated in April 1951. This Clinic will have facilities for schooling provided by the local boards of education. It is heartening to know that the child of pre-school age will be eligible for treatment at this Center, there being very few centers in New Jersey where children under 5 years of age are accepted for treatment of cerebral palsy. Best results in cerebral palsy care can be accomplished at the earliest age of detection.

At the request of the New York office of the National Foundation for Infantile Paralysis, your Advisory Committee on Rehabilitation was appointed in 1950 by the Board of Trustees of The Medical Society of New Jersey to serve as a Medical Advisory Committee to the New Jersey State Chapter of the Foundation.

During 1950 an increased number of general hospitals in New Jersey arranged for admission of acute and subacute poliomyelitis cases for active treatment. This is a sign of progress in health education as it affects the lay members of the hospital boards and the public in general. The Subcommittee on Public Health contributed its efforts toward achieving the above goal.

The attention of your Committee was called to the lack of facilities for treatment of cleft palate and harelip patients following plastic operations—such as speech therapy and special dental care. Plans are under way to arrange for speech therapy for these children in some of the cerebral palsy clinics in New Jersey. Not until separate funds become available will the dental needs of these patients of indigent families be fulfilled—such as fitting special prostheses, orthodonture, et cetera.

Your Committee was instructed to investigate the merits of the *Directory of Special Services* prepared by the New Jersey Conference on the Handicapped,—a manual listing the various agencies in New Jersey interested in the handicapped child as well as where such patients may receive treatment. This project was found worthy of consideration and so reported. Your Board of Trustees approved financing the publication of this Directory which is now available to any physician in New Jersey, without charge, if he will write the Medical Society Headquarters in Trenton.

RURAL HEALTH

Ralph M. L. Buchanan, M.D., Chairman, Phillipsburg

The Rural Health Program has progressed most satisfactorily under the direction of the Woman's Auxiliary. Ten thousand program leaflets have been distributed. The leaflet lists the nine programs, nine co-sponsors and twenty-one cooperating agencies. Eighty-four programs have been booked for an aggregate audience of 5281. The audience which has been reached in the 2½ years' activity exceeds 10,000. Fourteen of the counties in the state have been reached in the program bookings.

A partial listing of the groups reached includes Granges, Rotary Clubs, Church groups, Primary Schools, High Schools, Military Camp Schools, Extension Councils, Garden Clubs, Parent-Teacher Associations, and Women's Clubs.

The Auxiliary reports the Rural Health Program has a potential audience, conservatively, of twenty thousand a year. Many lay organizations would use more than one program if a wider promotional scheme were established. The Auxiliary has indicated it will have some definite recommendations for the consideration of our committee for the improvement and wider use of the program. Our Committee will study carefully any recommendations presented to us.

At the close of another year, our Committee takes this opportunity to express its appreciation to the Woman's Auxiliary and its Rural Health Program Committee for the splendid work they have done during the past year.

TROPICAL DISEASES

Christian P. Segard, M.D., Chairman, Leonia

While the Committe has not held a meeting we have reviewed the situation with regard to tropical diseases.

The only activity of the Committee at the present time is the presenting and publishing of abstracts from the current literature that would seem to be of interest to the membership.

The Committee has asked for suggestions regarding the extension of its activities but none have been presented. The State Health Department is to be commended on being a functioning organization in this field.

VENEREAL DISEASE CONTROL

Robert L. McKiernan, M.D., Chairman, New Brunswick

The Advisory Committee on Venereal Disease Control of The Medical Society of New Jersey brings the following to the attention of the House of Delegates:

1. That the profession be on guard regarding the treatment of syphilis. Since the advent of penicillin in treatment, we are beginning to find positive colloidal golds with negative blood Wassermanns.

2. That not enough spinal taps are being done to determine the efficiency of penicillin therapy. Because of this, we are now finding a new group of patients with neurosyphilis steadily filling up our institutions.

3. The Committee recommends to the State Board of Health that penicillin in sufficient therapeutic amounts from 10 to 15 million units must be used to insure adequate control. Every 6 months, spinal taps should be done until the gold curve and spinal fluid Wassermanns are negative. It has been our finding that it takes from 10 to 25 million units of penicillin to achieve this.

4. That penicillin alone in sufficient amounts is the real therapeutic agent. It should not be used with any heavy metals since they slow down recovery.

COOPERATING AGENCIES

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY

THE BOARD OF GOVERNORS

During 1950 the activities of Medical Service Administration have been limited to the operation of the City of Newark Medical Plan.

This Plan, designed to meet the needs of the indigent and medically indigent of Newark is a reimbursement rather than an insurance plan. It provides payment on a fee for service basis for services rendered by physicians of the patients' choice for care of eligible persons confined to their homes by illnesses.

The Plan continues to be a successful demonstration of the cooperation of an official health agency with a voluntary agency controlled by the medical profession in solving the problem of medical care of the indigent and medically indigent. It continues to arouse nation-wide interest as a pioneer effort to solve this problem within the framework and approved principles of organized medicine.

The following table depicts the experience of the Plan over a seven year period, showing actual costs and reflecting the changing economic picture. In interpreting this we remind you that the "indigent" are those whose names appear on the welfare rolls of Newark and that the "medically indigent" are those who, in the opinion of the Social Service Bureau of the city Board of Health, while having sufficient income to meet the routine cost of a satisfactory standard of living, do not have sufficient income to pay for adequate medical care. Since the only fixed, or well defined group, are the indigent, the cost per capita in this report is limited to the indigent group. It is impossible

to estimate the size of the medically indigent population.

As presented below, the figures pertaining to the medically indigent load consist only of those persons classified as medically indigent when requesting medical services; hence their costs are depicted on a cost per case basis rather than on a per capita basis.

The Plan has operated very smoothly in this past year. The relief load and the claims for relief cases have increased but slightly over that of 1949. The cost per capita of relief load has decreased from $1.51 per year in 1949 to $1.50 per year in 1950.

Medical care of the indigent and medically indigent under a program like the City of Newark plan meets with the hearty approval of patients, physicians and government agencies. The standard of medical care is higher and the costs to the government are less than under other systems. The greatest financial saving is due to the fact that under such a Plan, many people are cared for at home and fewer are hospitalized.

INDIGENT (RELIEF) PERSONS							
Year	1944	1945	1946*	1947	1948	1949	1950
Mean number of persons on welfare rolls during year	2082	1719	2155	2995	4274	7986	8704
Value of approved services	$2,243.00	$2,607.50	*$4,971.00	$7,823.00	$8,589.50	$12,046.00	$13,092.00
Cost per capita of relief load							
per year	1.07	1.51	2.30	2.61	2.00	1.51	1.50
per month	0.089	0.126	0.191	0.217	0.167	0.126	0.125
MEDICALLY INDIGENT CASES †							
Number of cases during year	435	1575	2950	2734	3283	4155	4446
Value of approved services	$1,260.00	$3,659.50	$9,556.50	$10,633.50	$12,775.50	$15,119.50	$15,298.50
Cost per case							
per year	2.89	2.32	3.23	3.89	3.89	3.639	3.441
per month	0.240	0.193	0.269	0.324	0.324	0.303	0.287

* In April 1946 fees payable to physicians were increased from $2. per day visit and $3. per night visit to $3. per day and $5. per night visit.

† The word "case" means family as distinguished from "persons" referred to under report on indigent.

MEDICAL-SURGICAL PLAN OF NEW JERSEY

THE BOARD OF TRUSTEES

PROGRESS REPORT

The table on the next page presents a summary of the annual growth and progress of Medical-Surgical Plan of New Jersey since its inception in 1942.

The following major characteristics are to be observed: (1) progressive growth in the number of subscribers; (2) impressive decrease in the ratio of administrative costs from 51.1 per cent in 1942 to 12.9 per cent of subscription income in 1950; (3) increase in the proportion of income devoted to payments for medical and surgical care from 48.4 per cent of income in 1942 to 81.5 per cent in 1950.

NATIONAL BLUE SHIELD ENROLLMENT

Seventy-two Blue Shield Plans and eleven non-member Plans, each organized by a unit of organized medicine, had a total enrollment as of December 31, 1950, of 19,141,795 persons. This represented a national gain of 36 per cent during 1950. The ratio of growth in 1949 was exactly the same as in 1950—36 per cent. Medical-Surgical Plan's growth in 1950 was 41.28 per cent, and in 1949 it was 49.54 per cent.

EVOLUTION OF THE PLAN

I. One of the objectives of The Medical Society of New Jersey, announced in June 1938 was, "To

Year Ending December 31	Earned Subscription Income	Claims Incurred	Claims Incurred (% of Inc.)	Operating Cost (% of Inc.)	Persons Enrolled End of Period
1942	$ 11,148.78	$ 5,395.50	48.4	51.1	4,131
1943	74,498.47	49,562.50	66.5	23.9	16,015
1944	187,708.74	135,605.75	72.2	18.9	30,427
1945	326,530.37	208,288.36	63.7	17.5	49,441
1946	540,227.83	370,576.10	68.6	16.8	88,088
1947	947,945.57	681,922.85	72.0	17.1	143,700
1948	1,524,814.76	1,203,651.50	79.0	15.0	236,604
1949	2,545,518.33	1,979,542.90	77.8	13.8	353,827
1950	5,252,060.16	4,278,098.89	81.5	12.9*	499,882

* Originally reported as 13.5 per cent; adjusted to 12.9 per cent following survey of actual expenses.

make available to every man, woman, and child in New Jersey adequate personal and sympathetic medical care, preventive and curative, at the lowest cost compatible with efficient service".

II. The principle of voluntary health insurance was endorsed by the House of Delegates of the American Medical Association on September 16, 1938. Immediately following this action, Dr. William Carrington, President of the Society, acting upon the urgent recommendation of Dr. Edward W. Sprague, appointed a committee under the chairmanship of Dr. Hilton S. Read to make recommendations regarding adaptation of this principle to the people of New Jersey. This committee reported in December 1938 that some form of voluntary health insurance could be evolved which would be appropriate to the needs of the people of New Jersey.

III. A Planning Committee under the Chairmanship of Dr. Sprague reported in February 1939 on the principles governing such an effort, to the effect that (1) it would require special legislation; (2) it must be on a non-profit basis; (3) all fully licensed physicians of New Jersey must be eligible to participate; (4) free choice of physician and patient must be preserved; (5) administrative control, direct or indirect, and policies must be vested in The Medical Society of New Jersey through its power of nomination to the Board of Trustees of the Plan; (6) the scope of medical services might initially be limited. They recommended the appointment of a Founding Committee.

IV. The Founding Committee under the Chairmanship of Dr. Elton Lance, first as a Committee and later as the Board of Governors of Medical Service Administration, continued the study of the problem and evolution of its mission. It accomplished the passage of an enabling act in 1940; the approval by the Trustees of the Society, of a "Medical and Surgical Plan for Hospitalized Patients" in July 1940; the incorporation of the Plan and securing the cooperation of Hospital Service Plan of New Jersey in the spring of 1942. Space does not permit a detailed presentation of the tremendous amount of work done by this group. Every action taken and every recommendation made was predicated on the welfare of the people of New Jersey and the best interests of the future of medicine.

V. The Founding Committee interviewed many representatives of industry and employed groups who described the major need as being for protection against the cost of catastrophic illness. This led to the practical definition of a catastrophic illness as one requiring hospital bed occupancy and treatment. The Committee felt that if the Plan were to provide adequate medical care, its contract must make provisions for medical, surgical, obstetrical, anesthesia and consultation services to hospitalized patients. This was a broader program than was contemplated, at that time, in any other state. To provide payment for services rendered under such a program, within the ability of people to pay, has necessitated adherence to sound underwriting principles to avoid accumulation of adverse health insurance risks in enrolled groups.

VI. Thus, the function of the Board of Trustees of Medical-Surgical Plan is to make available a contract for the payment for eligible medical care at a cost the people of New Jersey can afford to pay; and to operate the Plan within the present framework of medical practice.

THE PRESENT STAGE OF MEDICAL-SURGICAL PLAN EVOLUTION

The medical profession has been challenged by agitation for governmental control of the nation's health program. Medical-Surgical Plan and similar Plans represent the positive and constructive effort of the profession to meet this challenge.

In the early days of January 1951, Medical-Surgical Plan of New Jersey reached a major milestone in its development, when it enrolled its 500,000th subscribing member. This marked the end of the Plan's infancy and the beginning of its maturity.

Impressive as it is, the accomplishment of its first half million enrollment must be considered only as evidence of public acceptance of the Plan, a challenge to greater effort on the part of the profession, and a harbinger of the potential achievement of our purpose, to extend the benefits of the Plan to the entire population of New Jersey.

Medical-Surgical Plan, like its sister Plans, in the Blue Shield movement, is a dynamic social enterprise. It represents a partnership of employers, workers, farmers, commercial and professional people—together with the medical profession—dedicated to the proposition that the elementary need of the people for medical security can be met by voluntary methods—

within the traditional framework of American medicine. Our basic problem is to provide the broadest possible scope of service to its subscribers while safeguarding the legitimate rights and interest of its participating physicians.

The Board of Trustees is striving unceasingly to improve the Plan and to correct the deficiencies that have come to light in every stage of the Plan's development. This involves a continuous review of correspondence, and conferences with representative groups, which report to the Survey Committee.

The Trustees are grateful for the confidence reposed in them by the 4700 participating physicians who continue to make a solid indispensable contribution to the progress of the Plan. And the Trustees of Medical-Surgical Plan here express their appreciation to the management and staff of Hospital Service Plan of New Jersey for the unfailing interest, energy and cooperative spirit they have shown in performing the many administrative functions that have been contracted with Hospital Service Plan since the inception of Medical-Surgical Plan.

THE PAST YEAR

During 1950, Medical-Surgical Plan completed the transition from its 1944 Series Contract to the 1949 Series Contract. The administration of two radically different contracts, simultaneously in force for varying proportions of the enrolled membership, produced inevitable confusion, both for subscribers and for participating physicians. This source of difficulty is now fortunately a matter of history.

Early in 1950 the Plan decided to issue a limited number of non-group contracts upon an experimental basis. Opportunity for non-group enrollment was offered first to some 300,000 Hospital Service Plan non-group subscribers. An enrollment opportunity was offered to these persons for one month during April and May 1950 and 30,000 of these subscribers were enrolled through some 12,000 non-group contracts.

The present non-group contract contains a provision excluding conditions pre-existing the date of application. This has given the Plan an opportunity to study the administrative experiences entailed in carrying out such a provision. In the development of a new non-group contract, consideration will be given to the advisability of substituting specified waiting periods for presently excluded conditions.

Upon the advice and request of representative obstetricians, maternity services were included in the non-group contract, although Blue Shield Plans up to now have had little or no experience with maternity coverage in non-group enrollment. These services were made eligible with the understanding that until sufficient experience has been gained with maternity claims among non-group subscribers, payments will be limited to 60 per cent of the benefit normally payable for maternity services rendered members of an enrolled group. Even this limited payment provides a greater benefit than the Plan paid under the 1944 Contract for maternity for members of an enrolled group.

The same formula for reduced payment was necessarily applied to subscribers leaving employed groups and continuing their contracts on a non-group basis, where pregnancy has begun after the subscriber left the group and entered upon a direct payment status. This limited payment provision will be reviewed as soon as sufficient experience has accumulated with the hope that increased benefits for these services may be allowed. It is our hope that favorable experience with all phases of non-group enrollment will soon permit the Plan to offer a new enrollment opportunity for non-group subscribers.

During the early months of 1950, following the tragic loss of Dr. Norman Scott, the accelerated growth of the Plan enrollment and the increasing need for administrative improvements made it apparent that the services of a full time lay administrator were needed by Medical-Surgical Plan. After long study of the problem and a careful survey of available personnel, the Board of Trustess placed this problem before the Board of Trustees of The Medical Society of New Jersey and requested that the Society release its Executive Officer, Mr. James E. Bryan, to accept the position of Administrator of Medical-Surgical Plan. The Medical Society graciously acceded to this proposal and Mr. Bryan became affiliated with the Plan on November 1, 1950.

Since that time, the Plan has moved from its previous cramped quarters to larger and more serviceable offices in the same building at 790 Broad Street, Newark. This development has permitted the necessary expansion of the Plan's medical and administrative staff. In May 1950 Dr. Nicholas F. Alfano joined the staff as Assistant Medical Director, and on January 1, 1951, a second Assistant Medical Director in the person of Dr. Vincent J. Mele was added.

The tremendous increase in Plan transactions has revealed the necessity for revising claim procedure.

Heretofore, Medical-Surgical claims were initiated by a "Hospital Admission Notice" submitted by the hospital when a Medical-Surgical Plan subscriber was admitted as a bed patient. Upon receipt of such notice, a "Physician's Statement" was sent to the attending physician for his completion.

This proved unsatisfactory for several reasons: (1) frequently "Hospital Admission Notices" were not received until weeks after the admission of the patient; (2) "Hospital Admission Notices" occasionally gave the name of the wrong physician or provided no name at all; (3) "Hospital Admission Notices" gave no information concerning physicians rendering auxiliary or special services; (4) under this system, "Physicians' Statements" were sent out automatically, regardless of eligibility of services rendered; (5) the system failed entirely to provide for eligible emergency surgical services or tonsillectomies performed outside of hospital; (6) "Hospital Admission Notices" failed to provide certain information essential to the evaluation of claims.

After a complete survey of claim procedure utilized by other Blue Shield Plans, a new system was developed and announced by Medical-Surgical Plan, effective April 1, 1951. A greatly facilitated movement and disposition of claims is confidently expected.

During the past three months, the Medical Director has held a series of conferences with representatives of various professional groups. These conferences have been devoted to a review of the current *Schedule of Benefits* for the purpose of adapting this Schedule to a new Standard Nomenclature and Code approved by the American Medical Association and recommended by the Blue Shield Commission. A second purpose of these conferences has been to bring about more satisfactory fee relationships within the *Schedule of Benefits*. These conferences have now been virtually completed. More than 50 representative physicians have participated in these conferences and Medical-Surgical Plan is grateful for their interest and cooperation. The recommendations of the profession are being considered by the Survey Committee and the Board of Trustees of the Plan. The new *Schedule* will be distributed as soon as it can be completed. Publication of the *Schedule* will be included in a manual of information for participating physicians now in preparation.

During the year, the New Jersey Department of Banking and Insurance conducted an examination of Medical-Surgical Plan transactions for the past five years. The Department's exhaustive report concluded with the finding that "the Plan is in a sound financial condition and just claims are settled promptly and fairly".

An extensive program of physician's relationships is being developed. The objectives of this program are:

1. To open up and utilize every conceivable medium of two-way communication between the Plan and the medical profession.
2. Better to inform physicians and their office nurses and secretaries as to their functions in the operation of the Plan.
3. To create a better informed attitude of understanding and cooperation among physicians with respect to the purpose, policies and problems of the Plan.
4. To create a conscious sense of copartnership with the Plan among individual physicians, and a keener sense of their own sponsorship of the Plan and of their participation in the ultimate direction of the Plan.
5. To secure constructive suggestions for improvement of the Plan, among physicians.
6. To build the Plan's list of participating physicians up to the maximum number and to convert every participating physician into a cooperating physician.

Detailed arrangements for the implementation of these objectives are now being worked out.

The Board of Trustees concludes this report with a word of appreciation to the members and officers of The Medical Society of New Jersey, and to each of the Plan's participating physicians for their continued cooperation with Medical-Surgical Plan of New Jersey.

STATE BOARD OF MEDICAL EXAMINERS OF NEW JERSEY

E. S. HALLINGER, M.D., F.A.C.S., Secretary

During the calendar year 1950, the Board examined 54 applicants for a license to practice medicine and surgery. Ten of these were graduates of osteopathic colleges.

The Board also examined six applicants for a license to practice chiropody.

TABLE I

CANDIDATES FOR THE 1950 EXAMINATIONS

Medical	Total	Passed	Percent Passed
Graduates of U. S. Medical Schools	34	32	94%
Graduates of U. S. Osteopathic Schools	10	7	70%
Great Britain	1	0	0%
Italy	5	1	20%
Poland	1	1	100%
Germany	2	0	0%
China	1	0	0%
	54	41	80%

All candidates were citizens of the United States.

Two hundred and thirty-two licenses were issued to applicants for endorsement of a license from another state, or with a diploma from the National Board of Medical Examiners.

TABLE II

LICENTIATES BY ENDORSEMENT

Countries	Total
United States	212
Canada	3
Great Britain	4
Austria	5
Switzerland	4
Italy	1
China	1
Poland	1
Czechoslovakia	1
	232

All credentials covering medical and hospital work submitted to the Board were verified by questionnaires sent to the colleges and hospitals in this country and abroad before a license was issued.

The laws governing the practice of medicine and surgery, osteopathy and chiropractic, do not provide for an annual registration. The Board does not, therefore, know whether the number of licentiates in the state now in practice is increasing or decreasing.

TABLE III

LICENTIATES LOST TO NEW JERSEY

Physicians—Endorsed to Other States	67
Osteopaths—Endorsed to Other States	5
Medical—Licenses Revoked	1
Medical—Licenses Restored	1
Physicians—Deceased	69
Osteopaths—Deceased	1
Chiropractors—Deceased	3
	147

Annual registration would give the Board accurate information relative to the number of physicians practicing in New Jersey and would enable the licensed physicians to assist the Board in enforcing the law by reporting unlicensed physicians in their vicinity.

The laws governing the practice of chiropody and midwifery do provide for an annual registration and our records show a decrease of seven in the number of chiropodists registered on November 1, 1950, and a decrease of six midwives for the same period.

ENFORCEMENT

Following is a brief report of the Board's activities in enforcing the laws which they administer:

COURT CASES—VIOLATION OF MEDICAL LAWS (67)

Convicted, Pleaded "Guilty" or Settled	56
Pending in the Courts	11

HEARINGS BEFORE BOARD (3)

Medical—Licenses Revoked	1
Medical—Licenses Restored	1
Chiropractic—Licenses Pending for Revocation	1

CLASSIFICATION OF INVESTIGATIONS AND INSPECTIONS (194)

Type of Cases Investigated	No. Investigated
Druggists Practicing Medicine	21
Prescribing Herbs and Drugs	18
Unlicensed Medical Doctor	32
Licensed Chiropodists Violating Advertisement Regulations	12
Practicing Chiropody Without a License	8
Licensed Chiropodists Exceeding License	1
Licensed Chiropractors Exceeding License	8
Unlicensed Chiropractors	55
Licensed Chiropractors Assisting an Unlicensed Person	1
Licensed Osteopaths Exceeding License	1
Naturopaths	3
Physiotherapists	11
Electrotherapists	2
Massage	4
Laboratory Technicians Practicing Medicine	2
Unlicensed Medical School	1
Medical Revocation	1
Chiropractic Revocation	1
Miscellaneous	12

ANALYSIS OF INSPECTIONS AND INVESTIGATIONS

Investigations and Inspections Made	194
Visits Made and Treatments Received in Making the Investigations and Inspections	1156
Average Number of Visits per Investigation	5.9

COUNTY SOCIETIES

BURLINGTON

R. WINFIELD BETTS, M.D., President, Medford

The past year has been a busy one for this county society. The membership has cooperated exceptionally well in all activities. No member has refused a committee appointment or fallen down on any job. Committee chairmen are to be congratulated on the excellence of their leadership and the committee members for their diligence in performing appointed tasks. The spirit of cooperation in the society is exemplified by their showing in payment of A.M.A. assessments: 100 per cent.

The Society met at Riverton, N. J., every month at 9 p. m. Dr. Luis E. Viteri, chairman of the program committee presented the following programs at the regular meetings:

September—Cutaneous Symptoms in Systemic Diseases, Dr. Henry B. Decker.

October—Diagnostic Features of Pancreatic Diseases, Dr. J. Edward Berk.

November—Building a Treatment Program in Arthritis, Dr. Richard T. Smith.

December—Differential Diagnosis in Hepatic Disease, Dr. W. Paul Havens.

January—Medical Defense in Atomic Warfare, Dr. Edward W. Chamberlain.

February—Behavior Problems in the Child, Dr. John A. Rose.

March—Animated Hematology, The Armour Company; also Mr. Henry Haines, Burlington County Board of Chosen Freeholders: The Need for Reform in the Coroner System.

April—Migraine, Dr. Perry S. MacNeal; Treatment of External Otitis, Dr. Howard Hebble; Arterial Transfusion, Dr. D. H. B. Ulmer, Dr. Anthony V. Ziccardi and Dr. Lindley Reagan.

The April program was a home talent affair. Previous experience has taught us that this is one of the most enjoyable programs of the year. For the May meeting a dinner dance was held with members of the Woman's Auxiliary as our guests.

These programs speak well for the society. The excellence of the programs and the caliber of the speakers accounted for an average attendance of 50 per cent of the total membership at meetings. This, in a rural community, with busy general practitioners is commendable.

We were guests at a splendid supper given by the Woman's Auxiliary at the Riverton Country Club in February. Our Auxiliary is active and excellent; cooperation with them is always a pleasure, and they never let us down when a request is made.

The Welfare and Legislation Committee, Dr. S. Emlen Stokes, Chairman, is always busy. This committee reviews, corrects and attests for payment, all bills presented to the Burlington County Welfare Board. We have the fullest cooperation of the board and during the past year there has been not one incident of disagreement between us. The same cannot be said for the State Board of Child Welfare; however negotiations are now under way for revision of schedules. Dr. Stokes' committee has worked hard and faithfully with our society when requested to do so. Dr. William E. Bray has given the same excellent leadership to our local public relations program that he has to the State Committee, of which he is also chairman. During the year, 25 programs have been given by nine physicians to a total audience of over 2000. Immunization, child health, cancer and socialized medicine have been discussed. The cooperation of the county press has been gratifying. Emergency "round the clock service" is in effect in all of the larger towns. There has not been presented to the society a single case of public criticism.

The Public Health Committee under Dr. E. Warren Rodman decided to forego the week program presented last year, and concentrated its efforts on a county wide meeting in Mount Holly, "Your Defense Against Atomic Warfare". Drs. Albert Oppenheimer, John Bauer, Lindley Reagan, E. Vernon Davis and Ralph VanMeter gave a really superior round table discussion. Dr. Oppenheimer an authority on the subject, has since given numerous talks on the same topic to service clubs and lay organizations.

The need for revision of the coroner system in this as well as other counties is acknowledged by the society and a committee headed by Dr. John Bauer is cooperating closely with the Freeholders. Plans are now being prepared embodying changes in keeping with good medical investigation.

Outstanding work this year has been done by the Advisory Committee to Selective Service. Dr. Robert E. Haldeman, Chairman, Dr. Howard Hornberger and Dr. Dean LeFavor have worked faithfully and long hours in compiling a county list. They have given to Dr.

Herrman information which he could not obtain at the state level and have compiled a complete roster of every physician in the county. The essentiality of any physician residing in Burlington County is known to this committee. The committee has the closest cooperation of the Selective Service Board. This has proved an excellent team both for protection of the physician's interest and the obtaining of needed personnel for the Armed Forces. Two men in the county have been recalled to the Service. The most heartfelt congratulations to Dr. Haldeman's committee for its long hours of work!

Civilian Defense has received its share of time and preliminary plans are now prepared for approval of the higher echelons. Drs. Sparks, Viteri, Buckley and Betts have medical care plans well under way. The proximity of this county to Philadelphia, with two of the three bridges from Philadelphia crossing into this county makes it certain that our hospitals and medical personnel will be utilized to the utmost in case of atomic disaster. Here each is willing to do his share.

Dr. William E. Bray and Dr. Paul Sparks, our members of the State Welfare Committee were faithful in attendance at the committee meetings and in reporting to our local society. Our thanks to them for this important work.

It has always been the aim of this society to cooperate fully with the State Society in any of its policies. We have two "Fellows" at each convention as well as 100 per cent attendance of our delegates. We are always willing to do our share of the work.

Burlington County membership is now 66. During the last year we gained four new members and lost one by transfer. There were no deaths.

One last word in appreciation for the splendid cooperation of the officers and members, and particularly for the work of our excellent secretary, Dr. Richard T. Buckley, without whose help the presidency of the society would have been an ordeal, instead of a pleasure.

CAMDEN

Oram R. Kline, M.D., President, Camden

The activities of the Camden County Medical Society during the current year were necessarily influenced by the threat of a third Word War. However, we did not permit the added responsibilities of civil defense and aid to Selective Service to overshadow our primary objectives of providing adequate medical care and improving our public relations, both as individual physicians and as an organization.

We suffered an unusual number of casualties during the past year. Death claimed Dr. Thomas B. Lee, Dr. Joseph E. Roberts, Dr. John E. L. Van Sciver, Dr. J. Edgar Howard, Dr. Lavinia B. Clement, Dr. Edward W. Rossell, and Dr. Roy G. Hays. Dr. Lee was widely known throughout the state, having been active in the State Society in various official capacities.

Early in the year the mayor of the city of Camden requested that one of our members be named to organize the medical aid section of the Camden City Civil Defense Council. Dr. Walter A. Crist agreed to accept this appointment and he has done an outstanding service to the community by setting up a comprehensive organization with detailed plans for handling the medical problems incident to an atomic bomb attack. Many of the members of his organization should be cited for their constructive contributions to the over-all plan.

Plans for Public Health Week were initiated at a meeting in September, called by Dr. Martin H. Collier, chairman of our Public Health Committee. More than twenty organizations were represented and offered cooperation in the preparation of health exhibits to be displayed in store windows and public buildings. During the week of November 13, 1950, in addition to these health exhibits, speakers were supplied to various organizations by the Southern Dental Society and by the County Medical Society. The activities were climaxed with an outstanding address by Lieutenant Colonel M. B. Forbes on the effects of atomic bombing. This meeting was sponsored jointly by the Camden Civil Defense Council and the Medical Society.

Our public relations activities, including the Speakers Bureau, were ably directed by Dr. Edward R. Ristine. He supplied speakers to various lay organizations, reviewed and prepared copy for our *Bulletin*, revised our "round-the-clock" medical service, and supervised the public relations activities of our executive secretary.

An agreement with the State Board of Child

Welfare on fees for maternity services was approved. The physicians of Camden County are indebted to Dr. A. G. Pratt, chairman of our City and County Welfare Committee, for the detailed provisions of this agreement.

The Scientific Committee arranged and presented a varied program throughout the year including visiting speakers and members of our own group. In proportion to our membership of 260, the attendance was only fair.

The Society sincerely appreciates the aid and cooperation of the Woman's Auxiliary, particularly in the fields of civil defense and public relations. One of their successful projects was a one-day program of speakers and exhibits devoted to a comprehensive exposition of "Available Health Services in Camden County". A portion of this program was broadcast on television.

It has been the policy of our Society to cooperate actively with community health and welfare organizations. The aid accorded these organizations included the appointment of advisory committees, the naming of physician-members to boards, and, in some instances, active participation in fund raising campaigns.

In this brief summary there have necessarily been innumerable omissions of contributions by officers, committeemen and other members. I wish to thank all who so graciously accepted appointment and responsibilities enabling the Camden County Medical Society to function as a service to the membership and to the community.

CUMBERLAND

Carl N. Ware, M.D., President, Shiloh

Regular meetings of the *Cumberland County Medical Society* were held in June, October and December 1950, and in February and April 1951. Better than average attendance was noted at these meetings. Physicians in general seem to be taking a greater interest in the business of their medical society. Six new members were added; four by transfer and two elected.

The scientific programs under the direction of Dr. E. C. Greene brought to us many interesting subjects and prominent speakers. We heard Charles Bailey, M.D., John Dugger, M.D., Julian Johnson, M.D., and William W. Wilson, M.D., all of Philadelphia.

Delegates from the Cumberland County Medical Society had perfect attendance at the Annual Meeting of The Medical Society of New Jersey in Atlantic City.

A special dinner-dance meeting was held on October 25, 1950. United States Senator H. Alexander Smith was the guest speaker. His subject was Compulsory Health Insurance. Dr. Aldrich Crowe, Dr. Sigurd W. Johnsen and Dr. Henry B. Decker were guests at the meeting. The Honorable Millet Hand, Congressman from this district was also a guest. There were two hundred and twenty-five present for the meeting. Invited guests were chosen from a cross section of the population of our area and an attempt was made to carry our message against socialized medicine to a large number by appealing to this representative group. Senator Smith's speech was broadcast over the radio, and recordings were made for future use. Any medical society or group may have these records by communicating with Dr. Mary Bacon of Bridgeton, the secretary of our society.

The Cumberland County Medical Society was congratulated by the Disaster Division of the American Red Cross for their excellent cooperation during the November flood which left homeless five hundred people of lower Cumberland County.

This Society is going along with all the points recommended in the "Rainbow Folder" prepared by the Public Relations Committee of The Medical Society of New Jersey.

The Graduate Education Committee has set up a course of lectures for 1951 that promises to surpass anything we have had before. This Society stands high on the list of county societies with respect to payment of A.M.A. dues. We are proud that our record on this is almost 100 per cent.

An amendment to the Constitution, abolishing the Board of Censors and substituting a County Judicial Committee, has been prepared and will probably be adopted at the June meeting.

The members of the Cumberland County Medical Society received with regret, Dr. Herbert Wilson's resignation as treasurer, a position he has held for thirty years. Dr. Wilson has been diligent in the performance of his duties and regular attendance. It will be difficult to fill his place.

ESSEX

Otto G. Matheke, Sr., M.D., President, Newark

These meetings of the Society were held:

October 18, 1950—"The Place of the Essex County Physician in the Procurement and Assignment Program", William G. Herrman, M.D., Chairman, Procurement and Assignment, Medical Society of New Jersey.

November 13, 1950—"Effects of Atomic Bombing", Lt. Col. Merwin Forbes, U. S. A., Fort Monmouth, N. J. Preceding the meeting, interesting films on atomic warfare were shown at 7:00 p. m. The exhibit in civilian defense was received with a great deal of praise. It was re-exhibited at Princeton a short time later. Request was received from the New York State Medical Society to have the exhibit shown for their State Convention in the early part of May.

December 21, 1950—"Diseases of the Myocardium and Their Implications in Congestive Heart Failure", Irving Graef, M.D., Assistant Professor of Clinical Medicine, N. Y. U., Bellevue Medical Center, N. Y.

January 11, 1951 — "Community Planning for Health". Panel Discussion—Harrold A. Murray, M.D., Chairman, Public Relations Committee and a panel of six.

February 8, 1951—"Eye Findings in Hyperthyroidism", Isadore Givner, M.D., F.A.C.S., Ophthalmologist, Univ. and N. Y. City Hospital.

March 8, 1951—"Problems in the Surgery of the Biliary Tract", Royal A. Schaaf, M.D., and John J. Connolly, M.D., St. Michael's Hospital; Victor B. Seidler, M.D., Mountainside Hospital; C. A. Beling, M.D., St. Barnabas Hospital; William D. Crecca, M.D., Lutheran Hospital.

April 12, 1951 — "Cancer" — Joseph I. Echikson, M.D., Chairman, Executive Committee, Essex County Chapter American Cancer Society; William H. Seward, M.D., Roentgenologist, Orange Memorial Hospital; George Koeck, M.D., Radiotherapist, St. Michael's Hospital; Louis Levinson, M.D., Radiotherapist, Newark Beth Israel Hospital; Royal A. Schaaf, M.D., Attending Surgeon and Director, Presbyterian Hospital.

We had nine regular Council Meetings and two Special Meetings during the year.

Our Public Relations Committee had a full program with talks by doctors in their respective specialties practically every week from October to, and including May, over television station WATV. The subjects all pertained to medicine under the heading "Know your Doctors".

Dr. Harrold A. Murray, acting as moderator on Civilian Defense had thirteen discussions and exhibits comprising both state and national figures. There were actual demonstrations of how the people should take care of themselves during an atomic attack. Also the actual giving of blood was demonstrated in our blood bank.

We have the distinction, probably, of establishing the first Home Makers Service in the State. Funds for the maintenance of this have been mainly contributed by the Choral Committee who have given the proceeds of the yearly concert, for the entire care of the chronically ill.

The Speakers Bureau has been very active, and supplied speakers on different medical topics to high schools, churches, and other organizations.

HUDSON

Noah Meyerson, M.D., President, West New York

With program in full swing, but progressing all too rapidly toward its inevitable climax, Hudson County Medical Society now enters upon the final quarter of its official year of 1950-51. It is our pleasure to report, that unlike centenarians upon whom the laws of nature are binding, our Society continues to grow despite its years—in size, in vigor of spirit, and in accomplishment.

Seven of the eight scheduled regular monthly meetings at Murdoch Hall have taken place to date. Two meetings were held jointly—one with the Woman's Auxiliary to H.C.M.S., the other with the Hudson County Dental Society. Among guest speakers have been Emil Novak (Baltimore); Frank Glenn, Hayes Martin, and Robert S. Hotchkiss (New York); Philip Thorek (Chicago); and Harrison S. Martland (Newark). In addition, and in compliance with a request of the State Society, a program on psychiatric subjects was arranged and presented by two of our members, Dr. W. M. Doody of Jersey City and Dr. J. J. Scott of Weehawken.

In a report that of necessity is brief, it is impossible accurately to appraise the work of all committees. Singled out for mention, however, are a few of the standing and special

committees with their chairmen: *Membership Committee,* Dr. Evans; *Diabetes Committee* and *Committee for Postgraduate Medical Education,* Dr. Ginsberg; *Committee on Constitution and By-Laws,* Dr. Ruoff; *Public Relations Committee,* Dr. Butler; *Cancer Committee,* Dr. Faison; *Joint Committee for Professional Relations,* Dr. Varriano; *Public Health Committee,* Dr. Loori; *Physician Resources Committee,* Dr. Londrigan; and last, but not least, *Executive Committee,* over which I have had the honor to preside.

The *Membership Committee* has demonstrated its interest in the expansion and development of the Society by obtaining new members. Through the *Diabetes Committee,* the Society was again enabled to participate in the national and the state programs of the American Diabetes Association during the week of November 12-18, 1950. The *Committee for Postgraduate Medical Education* arranged another successful medical program in conjunction with Saint Peter's College, Jersey City. The curriculum included surgical anatomy, gastro-enterology, diagnostic roentgenology and hematology. The *Committee on Constitution and By-Laws* completed its revision of the Society's statutes.

Under the guidance of its Counsel, Mr. Richard I. Nevin, and having selected for its slogan, "Better public relations through more distinguished personal service", the *Public Relations Committee* early in the season organized a comprehensive program, part of which was designed to focus public attention on a fitting observance of the Society's centennial year, 1951.

Members of the *Cancer Committee,* by faithful attendance at meetings and gracious acceptance of numerous invitations to address lay and professional groups, have contributed most unselfishly of their time and effort in cooperation with the local chapter of the American Cancer Society in its program of scientific research, service to the cancer patient, and education. The *Joint Committee for Professional Relations* has, by sustained mutual effort, effected a marked improvement in the professional relationship of the physician and the pharmacist of Hudson County.

The *Public Health Committee* accepted complete responsibility for carrying out all Society-sponsored activities during Public Health Week, November 13-18, 1950. The *Physician Resources Committee,* under direction of the State Society committee of the same name, has placed itself at the service of those members who have been, and who will be, called for active military service.

At the beginning of 1951, the *Executive Committee,* in addition to its customary duties and obligations to the Society, accepted another responsibility, one imposed upon it, for the first time, by the Hudson County Board of Freeholders. Importuned for guidance and specific recommendations concerning management of the hospitals within the county, the Executive Committee met twice weekly for a period of several weeks and eventually formulated a program which it presented to the governing body of Hudson County. When publicized, the Committee's plan received favorable comment, editorially and otherwise, and was approved by all candidates for county supervisor and freeholder in the April 1951 primary election.

During the official year now drawing to a close, the Society conferred Honorary Membership upon four physicians: Dr. H. Ameroy Hartwell of Weehawken; Dr. Barnett Kooperman of West New York; Dr. William Meyer of Union City; and Dr. Frank Pearlstein of West New York.

Since our Annual Meeting on May 2, 1950, Hudson County Medical Society has suffered the loss, by death, of seven distinguished members: Dr. Harriet T. Dexter, Dr. Isaac L. Gordon, Dr. Kurt Marcus, Dr. James F. Norton, Dr. Benjamin Older, Dr. Stephen Santangelo, and Dr. J. Phillip Stout.

On December 28, 1950, the disturbing course of world events caused a solemn and ominous note to fall once more upon our Society, in the call to active military service of Dr. Kenneth Judy. Among those who have since reported for duty in the armed forces are: Drs. Carl Restivo, Edward F. Cannon, Chester Rydwin, Ross J. Simpson, Charles J. Modero and Francis E. Rieman.

In this annual report, it is our privilege to record briefly the cooperation that has been accorded us during the year by our Woman's Auxiliary, under the gracious leadership of Mrs. John J. Muccia. Activities we enjoyed jointly with the Auxiliary were (1) a supperdance at the Waldorf-Astoria in New York on November 29, 1950; (2) a hobby show, the feature of a meeting of our two groups on November 8, 1950; and (3) the annual open Health Meeting of the Woman's Auxiliary on March 7, 1951, an affair that should prove notable in the annals of Auxiliary history.

Our single social event of the season, the Annual Dinner, culminates by tradition the activities of the administrative year. Under the general chairmanship of Dr. Gleeson, this gala event will take place on April 7. The principal speaker on this auspicious occasion will

be none other than Mr. Nevin, who, on February 1, relinquished his post as our Public Relations and Speech Counsel, to become Executive Officer of The Medical Society of New Jersey. (We who are his erstwhile students in public speaking will enjoy lending *our* critical ears to *his* speech!)

Our season will end officially on May 1, with the Annual Meeting. Following closely, the Annual Meeting of The Medical Society of New Jersey will be held, and will be attended by the elected delegates of our organization, as well as by a large, unofficial delegation from the Society at large.

Now . . . may I thank most sincerely all who in any capacity have helped make my term of office as president of the second largest component society of The Medical Society of New Jersey the pleasant and rewarding experience I have found it to be—and who, at the same time, have served most zealously the interests of our organization and our profession.

MERCER

HAROLD S. MAGEE, M.D., President, Trenton

This Society has continued to grow, its membership (active, associate and emeritus) having increased during the past year from 307 to 331.

Eight scientific sessions were held during 1950, as well as an annual banquet; and a dinner to honor Dr. A. Dunbar Hutchinson, our retiring secretary, who had served in that capacity for 40 years, during which time, he contributed invaluable and outstanding services to the Society.

Several committees have been added, bringing the total to 22. Every phase of medical practice and administration is represented. One of the largest committees added during the past year was the Medical Civil Defense Committee, with an over-all membership of 32. It is prepared to function as soon as certain necessary information is received from the higher echelon.

Efforts to establish a united donor list and consolidated blood bank in this county had to be temporarily discontinued because of the withdrawal of Red Cross support and the failure of the hospitals to agree on a standard fee for processing and administering the blood.

Progress was made during the year in improving the relationship between the profession as represented in the Society and the public. Several members of this Society have been taking an active part in civic affairs.

MIDDLESEX

MARSHALL SMITH, M.D., President, New Brunswick

In 1950, the Middlesex County Medical Society held nine attractive and well attended meetings. Perhaps a simple recital of the programs would make the most effective possible annual report. In January we heard Dr. Philip Stimson speak on "Debatable Aspects of Poliomyelitis". The February meeting was featured by a talk on "Medical Aspects of Ophthalmology" by Dr. Emmanuel P. Rosne. In March we heard Dr. Solomon Estren speak on "The Spleen and Hyperspleenism" and in April, E. R Squibb and Sons sent us their director of Professional Training, Mr. William Colgate who spoke on "Recent Studies in Vitamin B-12". A talk on cancer of the mouth in May by Dr. Frederick G. Medinger, was followed by a paper on occupational dermatoses in June. The essayist on that occasion was Professor Joseph L. Morse.

After the summer break we re-assembled in October to hear a talk by Dr. J. M. Carlisle on "Clinical Applications of Cortisone". The November meeting was devoted to the timely topic of isotopes. The speaker was Dr. Stephen Yohalem, and his paper was entitled "Radio-Active Iodine in Hyperthyroidism". The year ended with the annual meeting and election of officers. Principal speaker was Mr. John B. Kennedy the distinguished commentator who spoke on the international situation.

MONMOUTH

SAMUEL EDELSON, M.D., President, Asbury Park

The importance of enthusiastic and active committees is reflected in the report of the Monmouth County Medical Society for the past year.

SCIENTIFIC PROGRAM

Our Committee on Scientific Program presented at the regular meetings a series of informative and interesting lectures on the following subjects:

The Sexual Psychopath.
The Development of the Human Dentition.
Control of the Patient in the Operating Room.
Cancer of the Colon.
Coronary Disease.
Interpretation of Electrolyte Patterns.
The Clinical Problem of Portal Hypertension and its Surgical Treatments.

One of our regular meetings was held at the Army Hospital, Fort Monmouth, where the membership of the Society were the guests of the medical staff of the hospital.

In September 1950, it was our privilege to be host to Dr. Harrold A. Murray, Vice-President of The Medical Society of New Jersey, who discussed with us the program and projects of the State Society.

PUBLIC RELATIONS

The "round-the-clock" emergency medical service, inaugurated July 1948, has continued to function efficiently under supervision of the Public Relations Committee.

The Committee on Interprofessional Relations has been active. Outstanding accomplishments of this committee include: A Joint Dinner-Meeting of the Medical, Dental and Pharmaceutical Societies; The monthly publication of *Prescription News* (a newsletter for local physicians and pharmacists); a "Grievance Committee"; an emergency "round-the-clock" pharmaceutical service; and the development of the "Pieper Project" to publish a list of common household commodities, their contents, and the antidotes if accidentally ingested.

Our Speakers Bureau has provided many speakers for lay groups and also played a prominent role during Public Health Week in arranging radio programs and speakers' schedules. Topics included socialized medicine, school health, public health and medical subjects.

The "1-10-20 Plan" Committee continued its educational campaign emphasizing the value of voluntary health insurance as compared to compulsory health insurance. Speakers were provided for various groups and literature pertinent to the subject was widely distributed throughout the county.

An exhibit on "Voluntary Health Insurance" was presented in cooperation with the Hospital Service Plan of New Jersey at the Red Bank Trade Exposition.

A series of lectures on "Advanced First Aid" was given over a ten-week period for the Monmouth County Association of First Aid Squads.

PUBLIC HEALTH WEEK

During Public Health Week, a diversified and well-rounded program was developed to reach the maximum number of people in their homes, through schools, and civic groups. Programs on "Atomic Bombing and Civil Defense" were presented. Radio programs and lectures were given to varied groups on the following subjects: "Blood Procurement", "Chest Diseases", "Heart Diseases", "Cancer", "Public Health", and "Socialized Medicine".

PHYSICIAN RESOURCES

Our Physician Resources Committee has established a file of duplicate classification cards for our membership and has served in an advisory capacity to the State Committee and the local draft boards. One of our members was honored by being chosen Director of Physician Resources for the State Society.

CIVIL DEFENSE

The local plan of civil medical defense organization has been hampered by the absence of plans at state and national level. Our committee acts in an advisory capacity to the civilian defense groups of the various communities and is prepared to serve in cooperation with the Blood Bank and Disaster Committees to provide emergency medical care.

The Disaster Committee has maintained close liaison with the local Chapter of the American Red Cross and is prepared to render assistance when needed.

A committee has been appointed to establish "Mobile Medical Units" and is developing a plan whereby such units would serve in an emergency in cooperation with the Civil Defense and Disaster Committees to supplement hospital services in a disaster area.

Donors Anonymous, the blood procurement

program whereby groups of volunteer blood donors are organized on a community basis under the direction of our Blood Bank Committee, is progressing favorably. To stimulate the formation of local donor groups, numerous talks have been given before various groups throughout the county.

CONSTITUTION AND BY-LAWS

Our Constitution and By-Laws have been revised and modernized and were adopted by the Society at the regular March meeting as proposed by the Committee on Rules and Revision of By-Laws. Incorporated in the revision are provisions for the establishment of a Judicial Committee as recommended by the State Society.

OTHER COMMITTEE ACTIVITIES

The Cancer Control Committee has continued the policy of formulating and recommending medical projects for the local Chapter of the American Cancer Society, and assisting in the service and educational programs of that organization. The five-year survey of cancer cases in Monmouth County has been completed and is being studied by the New Jersey Division of the Cancer Society.

Our Committee on Cardiovascular Disease is functioning in liaison with the Monmouth County Heart Association. Through this relationship, definite diagnosis of cardiovascular anomalies is made. In addition, through the cooperation of this committee with the Heart Association, funds have been supplied for cortisone and ACTH therapy in acute rheumatic fever. Also, funds have been provided for aiding in treatment at home of some cardiac patients.

In a similar manner, our Crippled Children Committee works in close harmony with the County Chapter of the National Foundation for Infantile Paralysis.

WOMAN'S AUXILIARY

Close liaison was maintained with the Woman's Auxiliary through our Advisory Committee. As noted in previous reports, the assistance of the Auxiliary has proved to be of great value. In addition, a joint committee of the Auxiliary and the Society sponsored the First Summer Dinner-Dance and the Second Holiday Dinner-Dance—both affairs were very successful and served as a means of our membership becoming better acquainted.

IN CONCLUSION

The foregoing is a summary of the year's activities—many other committees are functioning commendably and are continuing the activities mentioned in previous reports.

We are hopeful that a "Master Plan" will be formulated whereby this county will be able to coordinate its efforts in civilian defense with those of other counties.

MORRIS

J. HENRY HARRINGTON, M.D., President, Rockaway

The Morris County Medical Society was founded in 1816 and during all its 135 years has remained a loyal component of The Medical Society of New Jersey and continued actively to support the programs formulated by it and by the American Medical Association.

Attendance at meetings during the current season has shown marked improvement. Through our Program Committee, of which Dr. P. B. Patton is chairman, we have been fortunate in obtaining speakers of pronounced ability, whose subjects for interesting discussion embraced the following:

October—Dr. Robert P. McCombs—"Application of Steroid Hormones".
November—Dr. Morris Block — "Management of Chest Infections".
January—Dinner Meeting—Col. Sheldon S. Brownton—"Atomic Defense".
February—A Panel Discussion on Skin Diseases.
March—Dr. Charles Hendee Smith—"Care of the Sick Child".
April—Dr. Sidney Werner—"Radioactive Iodine in Thyroidism".
June—Dinner Meeting—Annual meeting and election of officers.

We have had an active year. This has been due to the cooperation of the members and the untiring work of the committees and their chairmen. Cooperating with the State Society committees have been appointed to aid local communities in civilian disaster programs and emergency hospitalization; "round-the-clock emergency medical service" has been established in most sections and is proving beneficial to the people and resulting in better public relations; two blood banks, one at the Morristown Memorial Hospital, the other at Dover

General Hospital, are sponsored by the County Society and serve the area; in cooperation with the American Cancer Society, tumor clinics are active at the three hospitals: All Souls', Dover General and The Morristown Memorial; a Compensation Committee, to adjudicate differences between the physician and the insurance companies was appointed in March.

The present membership totals 145. Ten new members were elected into the Society. They are Drs. Sam C. Atkinson, Elizabeth B. Eken, William H. MacGahan, Robert V. McCormick, Anson Perina, Richard J. Rushmore, Morton J. Silk, Gerald W. Snyder, William T. Strauss and Eugene L. Watkins. Four members entered the Service: Frank L. Bird, Daniel B. Carroll, Frederick M. Spitzhoff and James E. Ziegler.

The *Bulletin* has been published quarterly and as our spokesman, brings to the members of the Society items of scientific and constructive nature, along with news of local, state and national interest, all in a quiet dignified manner.

The population of Morris County has increased notably this decade, particularly within the past three years. Many new industries are locating here. Both have contributed to the obvious inadequacy of our general hospital needs, so it is with pleasure that I report an active building program — The Morristown Memorial is building a new hospital of 236 beds; Dover General Hospital is adding a new wing, increasing it to a 191 bed hospital. In Denville, St. Clare's Hospital is under construction. This will be a 145 bed capacity; and to serve the Boonton-Mountain Lakes area, plans for Riverside Hospital, a 75 bed hospital, are nearing completion. Within the next two years, we can anticipate 806 hospital beds as contrasted with the present 416, (exclusive of the County Tuberculosis Sanatorium and the State Hospital at Greystone Park).

I extend profound thanks to the members of the County Society for the honor and privilege of serving them during this past year. I wish to express my thanks to them for their cooperation, their attendance at meetings and for their active interest in all of our projects. Too much credit cannot be given the members of the Society who have served on committees. My sincere thanks go to Dr. P. B. Patton, chairman of the Program Committee, Dr. T. R. Failmezger, chairman of the Editorial Board and my good friends and faithful helpers on the Executive Committee, Doctors Stanley Teskey, Nicholas Bertha, Archie Crandell, Theodore Failmezger, Ruth Ferriss, D. Blair Sulouff, Henry O. vonDeilen, Jack L. Voss and Robert F. Zimmerman. To Miss Janet Clark, our executive secretary, we also extend many thanks.

PASSAIC

John E. Leach, M.D., President, Paterson

As this administration's year draws to a close, we again enter days when our problems are greatly multiplied. Once again our manpower is being called to help maintain the ideals of democracy in this world of unrest and unsettled conditions. Members are being called to active duty with the Armed Forces and a newly appointed "Aid to Physician-Veterans Committee" is endeavoring to formulate plans for assistance in the reestablishment of their practices upon return from Service. We now have a local physicians' resources committee in an advisory capacity to the local boards of Selective Service.

The Passaic County Medical Society is now 108 years old. From a membership of eight in 1844, the organization has increased to over 500 in 1951. Its scope of activities has kept pace with advances in preventive medicine, public health, medical education and medical care. The Medical Society is cognizant of its responsibilities to the communities in which it functions. The public must be kept educated as to the problems of medicine, both scientific and economic and liaison must be maintained with lay groups and health organizations throughout the County. The Medical Society took a step toward this end in the engagement of a Public Relations Counsel to act as liaison with the lay groups and health organizations, the press and radio and to further the cooperation of the Society in all health and welfare problems in the county. We must maintain a vigorous Society to uphold the ideals of our profession but the strength of any medical society depends upon the cooperation and the mutual understanding of all its members.

During the year, our Constitution and By-Laws were revised and brought up to date; we completed acquisition of a medical society headquarters, by purchase of the building at

Broadway and 28th Street, to house our meeting room and office. Here too, other health agencies may carry on their work of service to the residents of the County.

Public Health Week was observed again this year. Programs and exhibits were arranged at the hospitals for an 'Open House Day' in conjunction with the week. No central exhibit or meeting place was set up as was done in 1948, but a concerted effort was made to reach more people by our going out to them. Articles were written for the daily newspapers, radio talks were given and various organizations throughout the county, service clubs, women's groups and church societies, et cetera, were contacted with the request that they devote one program to some phase of health and welfare or to legislation pertaining to these matters. Response was excellent and through these mediums, more of the public were actually reached than by holding one or two centrally located meetings. Many of the requests were for talks and discussions on socialized medicine in which the public has shown an increasing interest, a desire to have a true picture of the nation's health standards and to know more about voluntary health insurance.

Diabetes Week coincided with Public Health Week and it was reported by the Chairman, Dr. Albert G. Markel, that 639 specimens were examined during the drive. The cooperating agencies were the Board of Health, 90 drug stores affiliated with the Passaic County Pharmaceutical Association and the 6 voluntary general hospitals of the county.

We here express our appreciation to the hospitals, the health and welfare agencies, the Pharmaceutical and Dental Associations, to the press and radio, our committee chairmen and members and to the other individuals who cooperated so fully to make these public health programs successful.

The Society has been kept informed of all pending legislation through the publication of those bills pertaining to medical practice and to public health. Our *Bulletin* has been published regularly with news of local, state and national interest to the members. Our congratulations and appreciation to Dr. Joseph E. Mott for his fine editorials and for the section "Comments and Annotations"—a concise and over-all picture of those items of most interest to us.

The Cardiac Committee has continued to work in close cooperation with the year-old Passaic County Heart Association which carries on full time programs of service to cardiac patients and education.

The Maternal Welfare Committee has continued its program—the Rh Negative Blood Donors Club which was organized in 1944. The membership has steadily increased although the calls on the club have decreased due to the availability of the Rh negative blood at the hospitals. The response, by the members of the club, to emergencies has been very gratifying—they are all willing and desirous of helping in those cases where the need arises for the Rh negative blood.

During September 1950, a Grievance Committee was organized for the purpose of handling complaints and to take adequate steps for hearing and settling these complaints from the public, to clarify misunderstandings and adjust differences and to improve general relations with the public. The hospitals of the county have each been asked to delegate one staff member to serve on this Committee. The system has functioned adequately and all of the individuals concerned have been favorably impressed with the speed and the fairness of the decisions rendered by the Committee.

Our Cancer Committee has been active during the year, continuing to work in conjunction with the Passaic County Chapter of the American Cancer Society in the carrying out of their programs of service and education.

The Membership Committee reports that since September 1950 and to date, thirteen physicians have been elected to active membership, seventeen to associate membership and one to courtesy membership. At present there are eleven applications pending for Active Membership and two for Associate Membership. During the year 1950, assessments for 476 active members were forwarded to the State Society. Three members resigned in 1950. Six transferred out.

Members deceased in 1950 were: Herman Achtentuch, Archibald Graham, David E. Warren, Henry Cogan, John S. Yates and Francis H. Todd. The following members have been called to active duty with the Armed Forces and have been granted leaves of absence from membership: Andrew C. Ruoff, Thomas F. X Lenihan, George E. Ainsworth, Emil P. Nowak, Richard S. Colfax, Samuel Baum, Richard E. Kuhn and Carl Rasin.

The Program Committee has obtained speakers of outstanding ability in their respective fields of medicine and have covered the following subjects:

September—"Virus Diseases of the Central Nervous System"—Israel S. Wechsler, M.D.
October—"Medical Aspects of Atomic Radiation"—Henry S. Berliner, M.D.
November—"Diagnosis and Treatment of Chest Diseases"—H. McLeod Riggins, M.D., Valley View Program arranged by Dr. Cherry and the

State Chapter of the American College of Chest Physicians.

December—"Cancer of the Mouth"—Hayes Martin, M.D.

January—"Aftercare and Treatment of Patients with Hemiplegia and the Amputee"— Donald A. Covalt, M.D.

February — "Pseudohermaphroditism" — Seymour F. Wilhelm, M.D.

March — "Steroid Hormones" — Elmer L. Sevringhaus, M.D.

April — "Cardiac Failure" — J. Scott Butterworth, M.D.

May—"Skeletal Aspects of Certain Medical Diseases"—Henry L. Jaffe, M.D.

The County Society instituted a medical press conference in the form of an informal luncheon in February. Officers and members of the Public Relations Committee discussed matters of local health and medical interest and recommended an improved code of cooperation between the press and the medical society. The Conference was very successful and it is felt that it will do much toward the continual improvement of relations between the press and the medical profession.

On behalf of the members, I express our thanks and appreciation to the Woman's Auxiliary for their interest and assistance in our projects and congratulations for the success they have had in carrying out their programs of education in health and welfare problems.

It would be difficult to enumerate in detail all of the activities of our committees and the Society. I wish to express my sincere appreciation to the officers of the Society, to the chairmen of the various committees and to the members for their support and cooperation, for their attendance at the meetings and their active interest and assistance in the affairs of the Society.

SOMERSET

William J. Albrecht, M.D., President, Somerville

The Somerset County program year opened with a special meeting on October 5, 1950. A Committee on Civilian Defense was appointed to cooperate with civil leaders in the surrounding communities.

On October 12, a testimonial dinner was given at the Far Hills Inn in honor of Dr. Lancelot Ely upon his retirement from active practice of medicine. Dr. Ely has long been active in the affairs of the State Medical Society and was its president in 1934. Dr. Ely has given unstintingly of his efforts for almost 50 years in our community. The principal speakers were Dr. Henry B. Decker, Second Vice-President of The Medical Society of New Jersey, and Dr. R. F. Hegeman. Dr. G. Barbour also spoke and presented Dr. Ely with fishing tackle and luggage on behalf of the Somerset County Medical Society and the Staff of the Somerset Hospital, in token of their esteem. Dr. Ely has been made an honorary member of our County Society. Dr. Ely has left Somerville and is now residing in Toms River, N. J., and we all join in wishing him good health and happiness.

During the past year the following were guest speakers at our meetings. On December 14, Dr. J. S. Butterworth of the New York University Medical College discussed the "Use of Drugs in Heart Diseases". Dr. Maurice Bruger, Associate Professor of Medicine at the Post Graduate School discussed "Thyroid Disorders" on January 11, 1951. On February 8, Mr. Philip Hofmann, Chairman of the Board of Johnson and Johnson, spoke on "Philosophy of Public Relations as Pertaining to Medical Arts and Sciences". Dr. Alfred Angrist of the New York Medical College gave a talk on the "Medical Aspects of Atomic Bomb Explosions" on March 8. On April 12, Dr. R. Franklin Carter, Professor of Surgery at the New York University Medical College led a Round Table Discussion on "Gall Bladder Disease".

On May 10, a Cancer Symposium will be presented by Associates of the Leahy Clinic at the Far Hills Inn, Somerville, from 9 a. m. to 5 p. m. This Symposium will be open to all physicians and is to be sponsored jointly by the Somerset County Medical Society and the Somerset Chapter of the New Jersey State Cancer Society.

A weekend Physicians' Emergency Service has been in operation for the past year in our county.

I sincerely appreciate the full support and cooperation of every member of the Woman's Auxiliary.

I wish to express my gratitude to all the members of the various committees, who have so willingly given of their time and energy.

UNION

Herschel S. Murphy, M.D., President, Elizabeth

Last year our appointed committees were set up to conform as closely as possible with those of the State Society. The first meeting of our Welfare Committee was held in June. A large number of committee members attended and outlined their programs for the year.

The School Health Committee has made a survey of the health facilities of the public schools and we hope to make one of the parochial schools within the year. Findings of the committee will be of assistance in implementing the Four Point Program.

The Public Relations Committee and the Speakers Bureau have had an active season. Newspapers have been most cooperative in publishing news of interest to the doctors and about the medical profession. The committee has furnished speakers on various medical subjects to clubs, church, industrial, professional and PTA groups. One of our radio programs has been discontinued for the present but the other one will be continued with the assistance of the State Society office which furnishes the recordings. During Public Health Week several of our members gave talks on atomic medicine as well as the usual medical subjects of interest. We have already had requests for the 1951 program.

One of the most important meetings of the Legislative Committee was one held with Assemblywoman Florence Dwyer, Judge John McGuire, Mr. Joseph Brescher and our legal council, Mr. Martin O'Connor. The meeting was held to discuss the problem of medical examinations made by physicians of drunk drivers. The Bergen County Medical Society had adopted a very comprehensive medical examination form and had also recommended that doctors testifying in local Magistrates' Courts have legal protection. With the permission of the Bergen County Medical Society and the endorsement of the Union County Medical Society, Mrs. Dwyer drew up Assembly bill No. 351 based on the Bergen County plan and the bill has already passed the Assembly.

The annual outing was held in October. It was one of the most successful ones we have had and about 135 members and guests were present. Our guests were Congressman Clifford Case, Assemblywoman Florence Dwyer, Assemblyman Fred Shepard, Mayor James T. Kirk and Mr. Julius Kwalick of Elizabeth.

Last June our first group was enrolled in the Hospital Service Plan of New Jersey. About fifty per cent of our members are participants. The new group (for June 1951) is now being contacted so that newly elected members have an opportunity to enroll and also those members who did not sign up before.

Last year the Program Committee decided to invite non-medical speakers to talk before the members of the Society on matters of common interest. We also had a number of outstanding physicians who gave most instructive programs. A symposium on Compensation in Relation to Medicine was one of the highlights of the season. The speaker at the annual meeting will be a well-known accountant who will discuss The Tax Problems of the Doctor.

This year we have set up a register of Rh Factor Negatives. At present we have only 450 names listed but with the assistance of the Woman's Auxiliary we hope to have a much larger list in the very near future in the event of emergency needs.

This year for the first time we have a Pharmaceutical Problems Committee. A very informative meeting was held with the Executive Board of the Union County Pharmaceutical Association. The Association is pleased that they now have a medical advisory committee to help them on any problems that may arise.

The Medical Education Committee sponsored a symposium in December with two outstanding speakers. There were over 100 members attending the afternoon and evening sessions. All expressed the desire to have another program of this type next year.

The Physicians Resources Committee was appointed at the request of the State Society. A file has been set up of the classified cards on all physicians in the county, including nonmembers. This latter group is comprised of doctors who are members of other county societies, interns, residents, industrial and institutional physicians.

For a number of years the society has needed a more comprehensive history of each member giving most recent details as to medical training, hospital and teaching positions, office hours, military status, if wife is a member of the Woman's Auxiliary and a number of other questions of importance. When the classification cards were mailed to our members a questionnaire was also sent with it. To date, over 400 have been returned. Members

who have not answered will be contacted within the next three months. The questionnaires have been bound in books and are proving invaluable. The Industrial Health and Hygiene Committee has had two very interesting meetings to make plans for a long range program.

The Woman's Auxiliary is more active each year. They have assisted us in many ways that it is difficult to mention any one project specifically. They held a symposium on The Problem of the Long Term Ill in February which has created a special interest for a program to provide home service care. During the Heart Fund Drive, the Elizabeth members were most helpful in mailing letters, delivering plastic hearts and doing many errands for the committee. The Auxiliary will assist our Executive Secretary in maintaining the file on Rh Factor Negatives in the future. The membership committee will use our questionnaires to communicate with the wives of our members who are not Auxiliary members and in this way try to increase the present membership of 152.

Our Executive Secretary continues her usual activities for the society by attending meetings to keep the doctors informed on matters of interest to them; helping patients who desire information on hospitals, specialtists, medical care of indigent and refers non-medical problems to the proper agencies. She also serves as secretary to the Union County Heart Association and, when possible, supplies nurses and secretaries for members of the society.

We deeply appreciate the continued support of the advertisers in our *Bulletin*. Such support enables us to publish our county periodical for the interest of members who are not always able to attend the regular meetings.

To the officers and to the members of the society, I wish to extend my appreciation for their attendance and for their cooperation in carrying out our program this past year.

BOOK REVIEWS

Health Services and Special Weapons Defense. Publication AG—11—1 of the Federal Civil Defense Administration. Government Printing Office, Washington 25, D. C., 1950. Pp. 260. ($0.60)

The most bargain-giving book store in the world is surely the U. S. Government Printing Office. Here, for example, for the small sum of sixty cents, you can own a book that details the treatment of expected casualties from enemy bombing. We are told exactly how to treat burns according to the most modern concepts, and what to do about the terrible new "nerve gases" which destroy acetylcholine. The possibilities of chemical and biologic warfare as well as bombing are reviewed. There is considerable detail about the setting up of medical organizations, the preparation of reports and the collection of statistical data. Sample forms for local hospital use are described. The preparation of emergency dressings, the basic laboratory equipment needs and the organization of nutrition services are also included. In style, the book is brisk and business-like and dulls its grim message by its very objectivity. Any physician who plays any role in civilian defense—and that means every M.D. in the country who doesn't go into uniform—will need some such volume as this. He is reminded that he must, in his organization, provide for the descent of his authority to others, since the mortality rate among civil defense health workers is expected to be high. There is a large chapter euphemistically entitled "mortuary services". Though not a cheerful book, it is required reading for any civilian doctor living in any state studded with arsenals, heavy industry, camps and shipyards. And that spells New Jersey.

Victor Huberman, M.D.

Communicable Diseases. Ed. by Roscoe L. Pullen, M.D. Pp. 1035; with 253 figures. Philadelphia, Lea & Febiger, 1950. ($20.00)

Communicable Diseases is complete and will be valuable to any physician who desires information on measles, histoplasmosis, rat-bite fever, or any other communicable diseases. Dr. Pullen and fifty-three contributors have authoritatively covered the subject. They are primarily concerned with diagnosis and management omitting theoretical discussion which the interested student may obtain by using the bibliographies at the end of each chapter.

Dr. Pullen's introductory chapter on the approach to a diagnosis and disposition of an infectious case is excellent and should, in particular, be appreciated by interns, residents and those doctors charged with the responsibility of admitting patients to an isolation unit. To serve as a guide to diagnosis the book is divided into discussions of the diseases predominantly affecting different systems of the body as exanthemata under skin; infectious mononucleosis under respiratory system; encephalitis under central nervous system.

J. E. Mast, M.D.

The Truth About Your Eyes. By Derrick Vail, M.D. Pp. 180. New York, Farrar, Straus and Company, 1950. ($2.50)

The purpose of this book is to provide the public with information about eyes, thus safeguarding their vision and dispelling many misconceptions. In simple language the development, function, and physiology of the human eye are explained. The correction of refractive errors is discussed, and the distinction between the ophthalmologist, optometrist, and optician is clearly stated. An evaluation of eye exercises is made. Of particular interest to parents of a child with strabismus are the chapters on treatment, both medical and surgical.

Corneal transplantation, retinal detachment, cataracts, and glaucoma are discussed along with the prognosis of their various operations. A very brief discussion of reading difficulties is included along with the suggestion that, in these cases, the old fashioned letter and phonetic method of teaching will often remedy the situation.

This book based on scientific facts, is well-written in easily understood language. It should be of great value to anyone interested in the care of his eyesight.

CHARLES L. O'NEILL, JR., M.D.

Progress in Gynecology. Volume 2. Edited by Joe V. Meigs, M.D., and Somers H. Sturgis, M.D. Pp. 821. New York, Grune and Stratton. 1950. ($9.50)

This is the second volume of the *Progress in Gynecology* series, its successful predecessor having appeared in 1946. It includes authoritative summations of developments in the field appearing since publication of the first volume. The editor's aim is to include only significantly new material or that which is in need of revised presentation and, not to offer discussions which do not represent "recent" progress. Nor is this a basic textbook on the various facets of gynecology. It is a "refresher course" condensed in one volume. Among its contributors are 78 outstanding national and foreign authorities on many aspects of gynecology and fields related. The result is a readable, informative, smoothly welded together volume. No one discussion is too long and, for the most part, all essential material has been covered.

Some of the discussions, however, are regrettably short. Surely, more space might have been devoted to gynecologic psychiatry with perhaps a clinically more applicable review of the subject. Dysmenorrheas and functional uterine bleeding each deserve a more lengthy approach. The list of commercial preparations of endocrine products used in gynecology is an excellent addendum to the work.

The book is recommended for the general practitioner as well as for the gynecologic specialist. It can confidently be read as an accurate picture of recent progress in gynecology countering the once oft-repeated assertion that this branch of surgery had become static.

HARVEY K. MECHANIK, M.D.

Cerebral Palsy. By John F. Pohl, M.D. (Pp. 224.) St. Paul, Minn., Bruce Publishing Co., 1950. ($5.00)

The author of this monograph deserves much commendation for being one of the first physicians to publish a timely and thoughtful outline of the treatment of cerebral palsy, a heretofore neglected and serious crippling deformity of children. In it one will find a detailed description of various technics of neuromuscular training for the palsied child. These descriptions and well-illustrated technics smack very much of the muscle training efforts of Sister Elizabeth Kenny in the treatment of poliomyelitis. The chapter devoted to the medical aspects of cerebral palsy, the average practitioner will find woefully lacking in most respects. In this important chapter, only nine lines of text are devoted to braces, one of the most essential adjuvants to treatment. The one short paragraph devoted to the "Use of Drugs" will appeal to most as inadequate. The chapters devoted to occupational therapy and speech therapy are clearly presented and well illustrated.

This book will be most appreciated by the physiotherapists, occupational therapists and speech therapists engaged in the rehabilitation of cerebral palsied children. It can only be recommended as a "first" to the practitioner who, unfortunately, will find it necessary to wait for a more adequate text book on the subject.

SIDNEY KEATS, M.D.

Neurology and Psychiatry in General Practice. Edited by H. R. Viets, M.D. Pp. 150. Grune and Stratton, New York, 1950. ($3.50)

Few specialties seem more mysterious to the general practitioner than neuropsychiatry. The family doctor veers betwen a feeling that psychiatry, at least, is only applied common sense, and an opposite feeling that what goes on in psychotherapy is utterly beyond description. Many attempts have been made to explain the content of psychiatry. This is one of the best. There is, for instance, a precious chapter on how to refer a patient to a psychiatrist—by no means a simple task as any general practitioner will confess. There is a good explanation of both analytic and standard psychotherapeutic technic. Another section is devoted to handling the uncooperative patient. The chapter on alcoholism is not as practical as the material in the rest of the volume, but it does afford excellent insight into the dynamics of this form of addiction. Equally attention-arresting is an excellent chapter on the nature of anxiety. While it does not tell the reader how to handle an attack, it does give a good explanation of how anxiety is generated. Brief sections on lobotomy and shock therapies are included. While some may find the editors over-optimistic in their evaluation of these therapies, the material is authoritative and helpful.

The neurologic chapters are, for the most part, exceedingly practical and down-to-earth. Presented simply, with exact treatment routines spelled out, are discussions of epilepsy, parkinsonism, cerebro-

spinal syphilis and migraine. An unusual chapter on rehabilitation of chronic neurologic cases is worth the price of the book alone. Any family doctor, worried about a hemiplegic on his calling list, will get inspiration from this. When my favorite general practitioner reaches his next birthday, I shall present him with a copy of this useful little book. It couldn't happen to a nicer guy.

Henry A. Davidson, M.D.

Advances in Internal Medicine. Volume IV. Edited by W. Dock, M.D., and I. Snapper, M.D. Pp. 549. Chicago, The Year Book Publishers, Inc. 1950. ($10.00)

Rather than being an over-all review of the year's progress in internal medicine, this excellent volume is a collection of monographs on topics of interest to the internist. It contains sections on nitrogen mustards, radio-active isotopes, brucellosis, neurology, sodium depletion as a therapeutic tool, anticoagulants, liver diseases, liver function tests, and hypertension. Each monograph is authoritatively written by an expert. Every article is complete, and reviews the historical, basic scientific and clinical aspects of each topic. While written in a scholarly fashion, the material is comprehensible to the physician, for whom it was planned. Each monograph requires a considered perusal, but careful reading will find its reward in increased knowledge and understanding of the topics at hand.

In addition, the presentation is up-to-date, the recent literature for each subject having been covered adequately and evaluated critically. This book, the fourth volume in its series, is recommended to the internist who desires a deeper understanding of a few of the major topics of current interest.

Rowland D. Goodman, 2d, M.D.

Researches in Binocular Vision. By Kenneth N. Ogle, Ph.D. Pp. 345; with 182 illustrations. Phila., Saunders Company, 1950. ($7.50)

One who, like this reviewer, has followed Dr. Ogle's work as it was originally published, will be pleasantly surprised to find how much this work has gained in stature by being put between the covers of a book. Ogle's own studies are placed in proper perspective against the background of earlier investigators and of the problems as they emerged during his many active years at the Dartmouth Eye Institute. At first a collaborator of Ames, to whom careful credit is given for his many contributions to the subject, the author emerged more and more as an investigator in his own right. His analytical and experimental contributions to the work and the instruments used in these experiments are well described and illustrated so that anyone may check Ogle's data and conclusions.

Special praise is due the illustrations. Even the uninitiated will get a good idea looking at these graphs as to how a haploscope or a horopter apparatus works, how a prism distorts, what the expected effect of a size lens is when looking into the leafroom, et cetera. Many of the illustrations are new. Even the old ones are newly conceived and, in many cases, better than the ones in the original publications.

Dr. Ogle devotes the smaller part of his book to the basic problems of binocular vision, such as corresponding retinal points, the horopter, fusion, and Panum's areas. Even here much is his original work. He gives adequate consideration to fixation disparity and cyclofusional movements. The approach to problems of stereoscopic vision is sound and much more conservative than the newer views of Ames and Luneburg which are only slightly touched.

The bulk of the book deals with problems of binocular vision, especially stereoscopic vision, as affected by changes in the relative magnification of the images of the two eyes and with experimental analysis and theoretical discussion of aniseikonia. He discusses the instruments designed to measure aniseikonia, the different clinical possibilities which produce aniseikonia and with the theory of its correction. All this is exceedingly well done. One is glad to get it straight finally that clinical aniseikonia is due to inequality of "cortical" not "ocular" or "perceptual" images.

As Dr. Ogle is not a clinician, one will not expect from him an analysis of the technic of measuring aniseikonia or a clinical appraisal of the difficulties, the contradictions and the many poor results.

Arthur Linksz, M.D.

Osler's Aphorisms. Edited and collected by William Bennett Bean, M.D. Schuman, New York, 1951. Pp. 148.

In this collection, the sensitive reader will find veritable gems, beautiful collections of thought, strung together like pearls on a bead. The thoughts are so true that they will live forever. They reflect with humility and sensitivity the philosophic thoughts of one of the master minds of the nineteenth century: William Osler. They teach wisdom and they preach tolerance. The *Aphorisms* represent a companionable night-table book, a decorative library volume and never-failing source of inspiration.

Julius Sobin, M.D.

Current Therapy—1951; Latest Approved Methods of Treatment for the Practicing Physician. Ed., Howard F. Conn, M.D. Pp. 699. Philadelphia, W. B. Saunders Co., 1951. ($10)

Current Therapy, 1951, continues the project begun by Current Therapy, 1949. This third volume exhibits technical excellence and close editorial attention. The subject matter has been expanded since the earlier volume; a greater number of contributors are in evidence. It is essentially a collection of completely accepted or relatively new therapeutic measures for a great variety of diseases within the covers of an easy reference guide. It answers such a purpose admirably. A roster of drugs annotated as to name, manufacturer and doses available, is appended. The text should be as popular as its predecessors.

Henry Green, M.D.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV May, 1951 No. 5

DIAGNOSIS OF PULMONARY LESIONS DISCOVERED BY MASS ROENTGENOGRAPHIC SURVEY

PART I

Dumont Clark, M.D., Carl W. Tempel, M.D., and Kenneth D. A. Allen, M.D., The Journal of the American Medical Association, July 15, 1950.

The technic of mass roentgenography of the chest uses a small film that is not diagnostic, but indicates abnormalities which must be identified by further studies including a 14″ x 17″ roentgenogram.

The identification of a pulmonary lesion is no different from that of a diseased condition elsewhere. The history is of the greatest importance, especially that part dealing with contact with tuberculosis, the regions of the country in which the patient has resided, his occupations, age, sex, race and family history.

It is to be understood that the radiograph should be of good detail, optimum contrast and proper density. Evidence of early disease can be obliterated from the roentgenogram of an infected case, or can be simulated in a normal chest, by poor films. Interpretation of the radiograph is the important item.

Use of a fluoroscope is not only completely inadequate for the detection of early disease but can be a menace by producing a false sense of security.

The physical examination of the chest and the lungs is disappointing in most chronic pulmonary diseases, especially in the discovery of an early lesion. However, an evaluation of the circulatory status of the patient by physical examination may be of value. Enlarged external lymph nodes, by their location, number and consistency, may indicate carcinoma, sarcoidosis, tuberculosis, a blood dyscrasia or lymphoma. A biopsy of the node may then settle the diagnosis.

The differential diagnostic value of the temperature, pulse, and respiratory rates is not great. A rise in temperature may indicate an infectious process. Changes in the pulse and respiratory rates, in the blood cell count, the sedimentation rate, and urinalysis are common phenomena whose significance is well known.

Specific Diagnostic Procedures

Three different skin tests are commonly used, the tuberculin, the coccidioidin and the histoplasmin. If properly performed, these tests are reliable for the disease in question. With few exceptions, a repeated negative reaction rules out the disease in question.

If the patient with a pulmonary lesion has sputum, a twenty-four hour specimen should always be examined for tubercle bacilli. Without sputum, it will be necessary to culture the fasting gastric contents for tubercle bacilli. Nearly all pulmonary lesions are suspect for tuberculosis primarily. When establishing a diagnosis of tuberculosis, the laboratory should culture the sputum for tubercle bacilli, or inoculate guinea pigs, as well as examine smears. Smears of gastric contents have little value because acid-fast bacilli other than the tubercle bacilli are common.

Sputum which is to be cultured for fungi should be coughed up after the patient rinses out his mouth with water or preferably a dilute solution of alcohol and water to remove the frequent

mouth contaminants. Sabouraud's mediums, or the ordinary blood agar mediums are generally used for culture. The identification of the fungus is a matter for the expert. It is difficult to culture pathogenic fungi from the stomach.

Carefully obtained samples of sputum can be studied by the Papanicolaou technic for malignant cells, which if definitely identified, are diagnostic of bronchogenic carcinoma. All patients with suggestive bronchogenic carcinoma should have a bronchoscopic examination.

A Wassermann or Kahn test of the blood should be made for every patient. Cold agglutinins are found in the serum of most patients with atypical pneumonia after the first week. Antibodies for fungus antigens are frequently present in the blood during the active stages of the infection.

Bronchoscopic examination is a highly specialized technic which should be done only by the expert. It is used to secure biopsy sections, to observe the lumen of the bronchi, and to aspirate bronchial secretions. It can be done a few days after hemoptysis; it is used freely in patients with any stage of pulmonary tuberculosis, and age is not a factor. A seriously ill patient should not, as a rule, undergo bronchoscopic examination.

The bronchogram, or roentgenogram made after the instillation of radiopaque oil, usually iodized oil, into the bronchial tree, is used in the diagnosis of bronchiectasis. Iodized oil, which may be retained for long periods, may obscure lesions or simulate disease in a normal lung.

It is occasionally recommended that streptomycin be given to a patient who has an undiagnosed lesion of the chest. If, under this treatment, the lesion improves in two or three months, this suggests that it is tuberculous in nature. Its use in this manner has little to commend it.

Pneumoperitoneum and pneumothorax are generally used as therapeutic measures. A pneumoperitoneum will show the position of the diaphragm. It will also show whether a lesion at the base of the lung is above or below the diaphragm. Pneumothorax has been used to delineate a pulmonary lesion but it is rarely used for this purpose now.

Fluoroscopic examination of the esophagus, posterior mediastinum, and stomach while the patient swallows a barium suspension can give important information especially when diaphragmatic hernia is present.

Thickened pleura and pleural fluid are often indistinguishable when the above diagnostic procedures are used. If fluid is present, it generally can be found with a needle and should be cultured for the tubercle bacillus and other organisms. With the development of the cytologic technic for the detection of bronchogenic carcinoma, there is little need for needle biopsy of chest tumors.

The Valsalva procedure and the angiocardiogram are mentioned only for the sake of completeness. Both are used to detect an arteriovenous shunt in the lungs although the angiocardiogram has other uses.

Exploratory thoracotomy is resorted to when all the previously discussed diagnostic procedures fail to determine the nature of a pulmonary lesion. The surgical procedures accomplished after the lung is entered may be simple biopsy, removal of a segment of the lung, lobectomy, or pneumonectomy, depending on the nature of the lesion and the judgment of the surgeon. The decision to explore should be made with the advice and help of the thoracic surgeon.

Note: This is the first of two abstracts dealing with the diagnostic procedures and differential diagnosis of pulmonary lesions found either on the small film used in mass roentgenography of the chest or on the diagnostic roentgenogram.

The second part of this paper will be used to prepare the June, 1951 issue of Tuberculosis Abstracts.

SUPPLIED BY
NEW JERSEY TRUDEAU SOCIETY
the medical section of the
NEW JERSEY TUBERCULOSIS LEAGUE
15 East Kinney Street, Newark 2, New Jersey

HANOVIA

The World's Finest
THERAPEUTIC
EQUIPMENT

Awaiting Your Inspection and Approval in Booth No. 30

NEW, Approved Medical

DIATHERMY

Designed to deliver adequate power for the heaviest duty and extraordinary flexibility of application, projects a new standard in Diathermy equipment. Can be used with ANY of the approved types of applicators—air spaced pads, induction cable, drums or special drum applicators, cuff electrodes and for minor electro surgery.

EASY TO USE!

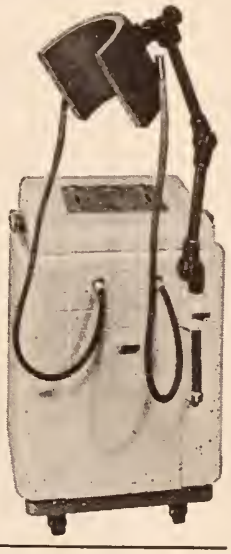
A single pair of outlets provides connection to any applicator, simplifying control, avoiding confusion and operating difficulties.

FINGER TIP CONTROL!

Easy to tune—the tuning adjustment requires only the slightest attention for use with any given applicator. Output power is controlled independently of the tuning.

NEW LOOK!

Modern design. Beautifully finished in acid-proof baked enamel, enhancing the appearance of any office.



Cat. No. 27300 R

ULTRAVIOLET FLURO LAMP

(BLACK LIGHT)

Catalog No. 31300

An intensive, high-pressure ultraviolet light source with fluorescent-exciting properties specially designed for medical diagnosis. Lamp is well constructed, has attractive appearance, is conveniently compact and easy to handle. Low in both initial and operating cost.

MEDICAL USAGES

Diagnosis of ringworm of the scalp
Rate of blood circulation
Parphyrins in urine (metallic poisoning)
Cancer diagnosis
Circulatory conditions where fluorescent dyes can be used as tracers

LUXOR Alpine Lamp

Cat. No. 5-2303-A

Your selection of this lamp represents a remunerative investment in the practice of Ultraviolet Therapy. The advantages of quartz-generated ultraviolet include respondency in:

● *Post operative recuperation and convalescence* ● *Healing of indolent, sluggish wounds* ● *Erysipelas* ● *Lupus Vulgaris* ● *Psoriasis* ● *Pityriasis Rosea and other dermatoses* ● *Tuberculosis of the bones* ● *Articulations* ● *Peritoneum intestine* ● *Larynx and Lymph nodes* ● *Stimulating and regulating Endocrine glands* ● *Calcium metabolism disorders, and numerous others.*

For detailed descriptions write to Dept. NJM-51

HANOVIA Chemical & Manufacturing Co.

NEWARK 5, N. J.

World's largest manufacturers of Therapeutic equipment for Hospitals and the medical profession.

Head Pain as a Diagnostic Lead

Frequently the presence of head pain is overlooked. The physician learns of it only if he has made an effort to elicit the information. Since the etiology of the pain is the basis of rational management, the patient should be warned against taking medication before diagnosis is made.

Friedman[1] deplores the tendency to call any chronic recurring headache migraine. Careful history-taking and full physical and neurological examinations are essential for accurate diagnosis. A good starting point is a description of the headache — its character, laterality, frequency and intensity.[2]

The following chart gives briefly the primary diagnostic leads and treatment for the most common types of headache.

Etiology of Headache	Primary Diagnostic Data	Primary Therapy
Inflammatory e.g., Meningitis Abscess	Inflammation of intracranial structures; fever; leucocytosis; bacteriologic diag.	Specific: sulfonamides and antibiotics. Symptomatic: analgesics.
Tumor	Pain varies as spinal press. changes; skull X-ray.	Specific: surgery. Symptomatic, analgesics &/or hypnotics.
Sinusitis	Sinus congestion and infection; cloudy X-ray.	Specific: antibiotics and drainage. Symptomatic: analgesics.
Hypertensive	Hypertension present but pain not related to b. p. level; Dihydroergotamine. relieves pain.	General hypertension therapy; sedation. Symptomatic: analgesics.
Migraine & other vascular headaches	Headache: recurrent, intense, throbbing. No organic causation; migraine in family; patient: energetic, perfectionist. Visual prodromata; g-i. upset during headache.	To abort attack: oral ergotamine plus caffeine. General: adjustment to minimize nervous stress.

Data here tabulated is from: Wolf, G., Jr.,[3] and Friedman, A. P.[4]

Cecil[5] ranks vascular headaches, e.g., migraine and tension headaches, as the most commonly encountered of all. Because of their functional nature and usual recurrence at frequent intervals, they present a long-term therapeutic problem.

Therapy is conducted along two lines:

1) Psychotherapy to reduce the frequency of attacks. This consists mainly of advice on emotional adjustment to stressful situations and guidance toward a good balance between work and relaxation.

2) Treatment of the distressing attack to prevent the usual period of incapacitation. Many investigators have reported that ergotamine preparations are effective for relief of the acute migraine attack in 80% of cases.[1,6] *The drug is given immediately when an attack is approaching and dosage adjusted to the needs of the individual.*

1. Friedman, A. P. and von Storch, T.: 99th A.M.A. Session, June 1950. 2. Butler, S. and Hall, F.: M. Clin. N. Amer., p. 1439 (Sept.) 1949. 3. Wolf, G., Jr.: M. J. 54:25, 1951. 4. Friedman, A. P. and Conn, H. T.: Current Therapy, 1950, p. 563; Saunders Co., Phila. 5. Cecil, R. L.: A Textbook of Medicine, ed. 7, 1948, p. 1483; Saunders Co., Phila. 6. Horton, B. et al: Staff Meet. of Mayo Clinic 20:241, 1945.

allergies are always with us

ALWAYS AVAILABLE

BENADRYL®

FOR RAPID SUSTAINED RELIEF

PARKE, DAVIS & COMPANY

Angioneurotic edema in January or vernal conjunctivitis in June brings patients to you seeking relief from their symptoms. BENADRYL is often the answer for many of these patients, regardless of the exciting allergen or of the shock tissue.

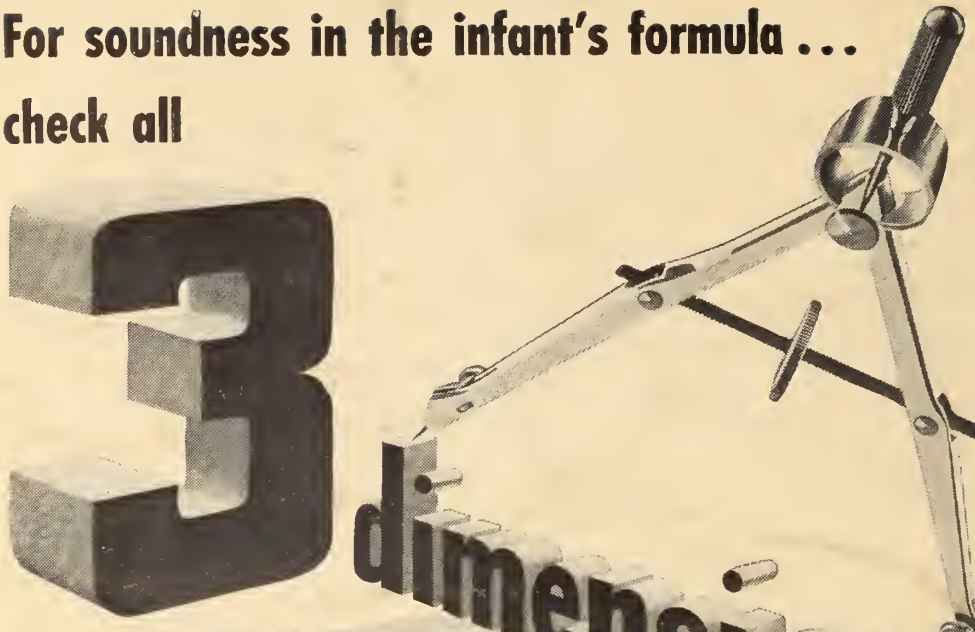
Hundreds of clinical reports have shown the value of BENADRYL in acute and chronic urticaria, vasomotor rhinitis, hay fever, contact dermatitis, erythema multiforme, pruritic dermatoses, dermographism, drug sensitization, penicillin reactions, serum sickness, and food allergy.

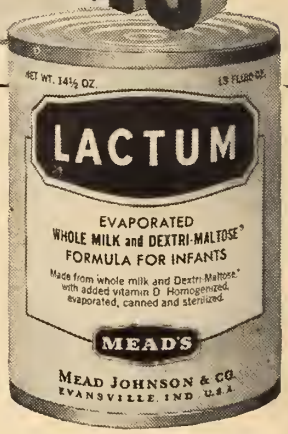
To facilitate individualized dosage and flexibility of administration, BENADRYL Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a variety of forms—including Kapseals,® 50 mg. each; Capsules, 25 mg. each; Elixir, 10 mg. per teaspoonful; and Steri-Vials,® 10 mg. per cc. for parenteral therapy.

DETROIT 32, MICHIGAN

MEDICAMENTA VERA · P & CO.

For soundness in the infant's formula . . . check all





An example of sound three-dimensional structure is LACTUM, Mead's evaporated whole milk and Dextri-Maltose® formula.

1. Sixteen per cent of Lactum's calories are supplied by *milk protein*—a generous allowance for growth and development.
2. *Milk fat* contributes 34% of the calories.
3. *Carbohydrates* (lactose and Dextri-Maltose) supply 50% of the calories—to provide generously for energy, permit proper metabolism of fat, spare protein for tissue-building functions.

Authoritative pediatric recommendations support this caloric distribution. And cow's milk and Dextri-Maltose formulas with these approximate proportions have been successfully used in infant feeding for forty years.

Lactum's 4th dimension . . .
Time-saving convenience
Simply add water. A 1:1 dilution of Lactum provides 20 calories per fluid ounce.

FOR INFANTS WITH LOW FAT TOLERANCE
DALACTUM, an evaporated low fat milk and Dextri-Maltose formula offering the same convenience as Lactum.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, NO. 6 JUNE, 1951 Subscriptions, $3.00 per Year
Single Copies, 30 Cents

CONTENTS—Pages 253 to 300

Place of Publication, Printing and Mailing:
116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society:
315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*..... Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390
IRVING P. BORSHER, *Medical Director*

OFFICERS

President, SIGURD W. JOHNSEN .....Passaic
President-Elect, HARROLD A. MURRAY .....Newark
First Vice-President, HENRY B. DECKER .....Camden
Second Vice-President, ELTON W. LANCE .....Rahway
Secretary, MARCUS H. GREIFINGER .....Newark
Treasurer, GEORGE J. YOUNG .....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953) .....Atlantic City
REUBEN L. SHARP, *Secretary* (1954) .....Camden
SIGURD W. JOHNSEN .....Passaic
HARROLD A. MURRAY .....Newark
HENRY B. DECKER .....Camden
ELTON W. LANCE .....Rahway
MARCUS H. GREIFINGER .....Newark
GEORGE J. YOUNG .....Morristown
ALDRICH C. CROWE .....Ocean City
WILLIAM F. COSTELLO (1953) .....Dover
WILLIAM C. WILENTZ (1953) .....Perth Amboy
JOSEPH G. COLEMAN (1953) .....Hamburg
L. SAMUEL SICA (1954) .....Trenton
DAVID W. GREEN (1954) .....Salem
J. LAWRENCE EVANS (1954) .....Woodcliff
ROYAL A. SCHAAF (1952) .....Newark
WILLIAM E. DODD (1952) ..... Beach Haven
C. BYRON BLAISDELL (1952) ..... Asbury Park

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1954)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties)..... .....JACOB J. MANN, Perth Amboy (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1954)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1953) .....Hoboken
WILLIAM F. COSTELLO (1953) .....Dover
J. WALLACE HURFF (1952) .....Newark
DAVID B. ALLMAN (1952) .....Atlantic City
ELMER P. WEIGEL (1952) .....Plainfield
L. SAMUEL SICA (1952) .....Trenton

Alternates

ALBERT B. KUMP (1953) .....Bridgeton
WALTER F. PHELAN (1953) ..... Elizabeth
JOHN H. ROWLAND (1952) .....New Brunswick
ALDRICH C. CROWE (1952) .....Ocean City
HERSCHEL PETTIT (1952) .....Ocean City

COMMITTEES AND CHAIRMEN

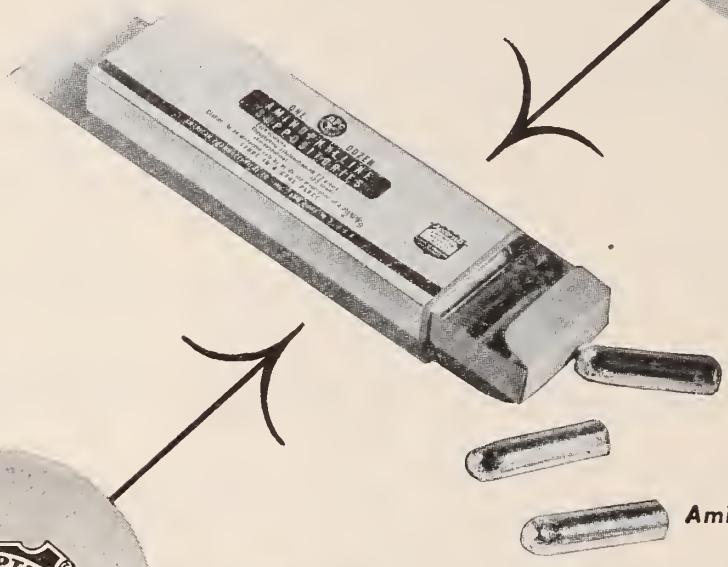
Committee	*Chairman*
Finance and Budget	DAVID B. ALLMAN, Atlantic City
Medical Defense and Insurance	J. WALLACE HURFF, Newark
Publication	J. LAWRENCE EVANS, JR., Leonia
Scientific Work	
Honorary Membership	ROYAL A. SCHAAF, Newark
Woman's Auxiliary	LEWIS C. FRITTS, Somerville
Medical Education	FRANCIS M. CLARKE, New Brunswick
Annual Meeting	ASHER YAGUDA, Newark
Scientific Program	JOHANNES F. PESSEL, Trenton
Scientific Exhibit	WILLIAM W. HERSOHN, Margate City
Welfare	SAMUEL BLAUGRUND, Trenton
Legislation	C. BYRON BLAISDELL, Long Branch JOSEPH F. LONDRIGAN, *Executive Secretary*, Hoboken
Public Relations	JOSEPH E. MOTT, Paterson
Medical Practice	ALBERT B. KUMP, Bridgeton
Public Health	JOSEPH I. ECHIKSON, Newark
New Jersey Medical School	STUART Z. HAWKES, Newark
Adult Disease Control	NATHAN SWERN, Trenton
Cancer Control	WILLIAM O. WUESTER, Elizabeth
Cardio-Vascular Diseases	JEROME G. KAUFMAN, Newark
Chest Diseases	HARRY J. WHITE, Metuchen
Child Health	FREDERIC W. LATHROP, Plainfield
Conservation of Vision and Hearing	REINHOLD W. TERKUILE, Ridgewood
Maternal Welfare	JOHN D. PREECE, Trenton
Mental Hygiene	HARRISON F. ENGLISH, Trenton
Rehabilitation	H. EUGENE READING, Paterson
Rural Health	RALPH M. L. BUCHANAN, Phillipsburg
School Health	ELTON W. LANCE, Rahway
Venereal Disease Control	ROBERT L. MCKIERNAN, New Brunswick
Anesthesiology	EDWARD T. LAWLESS, Upper Montclair
General Practice	D. WARD SCANLAN, Atlantic City
Group Practice	CLARENCE B. WHIMS, Ventnor
Hospital Relationships	FLORENTINE M. HOFFMAN, New Brunswick
Laboratory Medicine	ASHER YAGUDA, Newark
Nursing	ANDREW C. RUOFF, Union City
Pharmaceutical Problems	JOHN L. VARRIANO, Jersey City
Physical Medicine	ELMER J. ELIAS, Trenton
Radiology	JOHN L. OLPP, Tenafly
Welfare Services	HAROLD C. COX, Hightstown
Workmen's Compensation and Industrial Health	RALPH A. YOUNG, Linden
Civil Medical Defense	
Emergency Education Program	HENRY B. DECKER, Camden
Physician Resources	WILLIAM G. HERRMAN, Deal

APc AMINOPHYLLINE SUPPOSITORIES

NEW

CONVENIENT

WIDELY APPLICABLE



ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Now COUNCIL-ACCEPTED

Council-Accepted Aminophylline Suppositories, APc now join Council-Accepted Aminophylline Tablets, APc (plain and enteric coated) as convenient, effective, simple adjuncts in the treatment of selected cardio-respiratory conditions.

DIURETIC • MYOCARDIAL STIMULANT • BRONCHIAL RELAXANT

AMINOPHYLLINE SUPPOSITORIES, APc

In a non-greasy, water miscible base • Useful in mild to moderate bronchial asthma; adjunctal to oral or intravenous aminophylline in all indications; for nocturnal relief; where intravenous therapy is undesirable or not available. Bronchial relaxation is fairly rapid, almost as complete as intravenous therapy.

AMINOPHYLLINE TABLETS, APc

ENTERIC COATED

Pass through stomach without causing local irritation or gastric distress due to special enteric coating. Readily disintegrate in the intestinal tract. Indicated in bronchial asthma (particularly epinephrine-fast), pulmonary or cardiorenal edema, paroxysmal dyspnea, and Cheyne-Stokes respiration.

SUPPLIED: Suppositories, APc 7½ gr., boxes of 12.
Enteric coated tablets, 1½ and 3 gr., bottles of 100, 1000, 5000; uncoated tablets, 1½ and 3 gr., bottles of 100, 1000, and 5000.
Please specify suppositories or tablets on sample request.

AMERICAN PHARMACEUTICAL COMPANY

MANUFACTURING CHEMISTS • NEW YORK 18, N. Y.

Over 30 years of service to the profession.

New in Hypertension

TABLETS

DIVASOR

(MARA)

- HESPERIDIN METHYL CHALCONE—20 mg.

  The most potent of the flavone rutinosides. It provides five times the activity of Hesperidin and pharmacologically shows remarkable hypotensive action, prolonged but apparently safe.

- MANNITOL HEXANITRATE—30 mg.

  Provides steady, moderate and prolonged vasodilator action.

- HOMOTROPINE METHYL BROMIDE—1 mg.

  Relieves distressing gastro-intestinal symptoms which may aggravate the hypertensive syndrome.

- PHENOBARBITAL—15 mg.

  Allays the anxiety and tension which are so often present in the hypertensive patient.

- ASCORBIC ACID—60 mg.

  Obviates sub-clinical Ascorbic Acid deficiencies and aids in the restoration of normal capillary fragility and permeability.

Moderate ℞ cost

Samples and Literature on request

The Mara Laboratories, Inc.

HARRISON NEW JERSEY

What cigarette do you smoke?

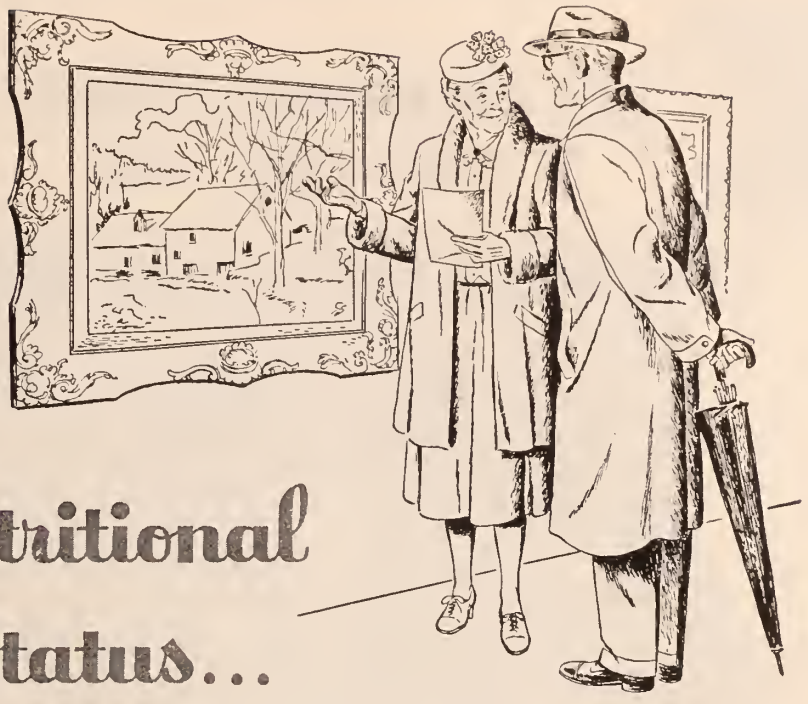
● As a doctor, you are familiar with the confirmatory tests necessary to prove a fact. Why not apply this principle to your choice of a cigarette? Why not make your own 30-Day Camel Mildness Test?

It's a sensible cigarette test! No tricks — no one-puff decisions! You smoke Camels regularly—for 30 days. *Then* you decide! Yes! Make a thorough day-after-day, pack-after-pack test of Camel's choice tobaccos. Find out over a reasonable period of time how mild a Camel can be—how good tasting Camels are! Find out in your own "T-Zone". Compare Camels for mildness and for flavor. See if the 30-Day Camel Mildness Test doesn't give you more smoking enjoyment than you've ever had from any other cigarette!

R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

More People Smoke Camels THAN ANY OTHER CIGARETTE!

Make your own 30-Day Camel Mildness Test in your own "T-Zone"—that's T for Throat, T for Taste. See if you don't change to Camels for keeps.



Nutritional Status...

AN IMPORTANT FACTOR IN OLD AGE

A RECENT study[1] of the health and nutritional status of 200 elderly patients and their dietary habits revealed their food intake to be deficient in iron, calcium, protein, and, particularly, B complex vitamins. In many instances the lassitude and premature weakness of the elderly are due to such deficiencies.

Correction by increased intake of ordinarily eaten foods often proves difficult. The quantities that would have to be eaten frequently are more than the individual can consume comfortably.

Ovaltine in milk—a tasty, readily accepted and easily digested food supplement—offers a simple solution to this problem. Its wealth of biologically adequate protein, quickly utilizable carbohydrate, and needed vitamins and minerals, serves well in the aim of bringing nutrient intake to optimal levels.

The nutritional contribution of three servings of Ovaltine in milk (the recommended daily amount) is defined in the appended table.

1. Bortz, E. L.: Management of Elderly Patients, Postgraduate Med. 3:186 (Mar.) 1950.

THE WANDER COMPANY, 360 N. MICHIGAN AVE., CHICAGO 1, ILL.

Ovaltine

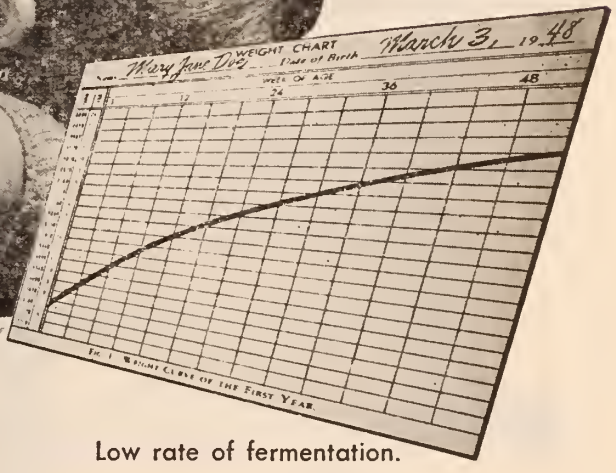
Three servings of Ovaltine, each made of ½ oz. of Ovaltine and 8 oz. of whole milk, provide:*

PROTEIN	32 Gm.	VITAMIN A	3000 I.U.
FAT	32 Gm.	VITAMIN B_1	1.16 mg.
CARBOHYDRATE	65 Gm.	RIBOFLAVIN	2.0 mg.
CALCIUM	1.12 Gm.	NIACIN	6.8 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN C	30.0 mg.
IRON	12 mg.	VITAMIN D	417 I.U.
COPPER	0.5 mg.	CALORIES	676

*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving, they are virtually identical in nutritional content.

To Maintain a Steady Weight Curve



Cartose is a carefully proportioned mixture of dextrins, maltose and dextrose.

Since each of these carbohydrates has a different rate of assimilation, a steady supply of carbohydrate is released for "spaced" absorption.

Low rate of fermentation.

Low incidence of digestive disturbances.

Bottles of 1 U. S. pint.

Write for formula blanks.

Specifically Designed for Infant Feeding

CARTOSE®

MIXED CARBOHYDRATES IN EASY-TO-USE LIQUID FORM

Compatible with all milk formulas

Less Colic · Less Diarrhea

Winthrop-Stearns INC. · NEW YORK 13, N. Y. WINDSOR, ONT.

Cartase, trademark reg. U. S. & Canada

ESSENTIALS OF AN ANTIBIOT

rapid absorption and distribution in maternal body fluids and tissues

Rapid absorption and distribution following oral administration suggest the use of Terramycin as an effective aid in combating puerperal infection. Therapeutic serum and tissue levels are quickly achieved, to control many infectious processes which may complicate pregnancy or labor. In pyelitis of pregnancy caused by a sensitive organism, for example, patients respond to Terramycin "...very promptly..." with "...a prompt drop in temperature, disappearance of pyuria and bacilluria, and symptomatic relief."[1]

CRYSTALLINE

Terra

broad antimicrobial spectrum

The antimicrobial spectrum of Terramycin encompasses pathogens responsible for many of the infections which may complicate pregnancy, e.g., streptococci, staphylococci, pneumococci, coliform bacteria, gonococci, and the viral-like causative agent in lymphogranuloma venereum.

---

1. Douglas, R. G.; Ball, T. L., and Davis, I. F.: California Med. *73*:463 (Dec.) 1950.

2. Pratt, P. T.: Nebraska State M. J. *35*:294 (Sept.) 1950.

ANTIBIOTIC DIVISION

Pfize

OR OBSTETRICAL PATIENTS

rapid passage through the placental membrane

Terramycin readily traverses the placental membrane and becomes available in the fetal circulation to combat or prevent fetal infection, said to be a frequent cause of premature labor or abortion. In both mother and fetus "very prompt response" with Terramycin treatment has been recorded in pneumococcic pneumonia complicating pregnancy.[2]

mycin

HYDROCHLORIDE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

The growing literature continues to stress:

1. **The broad-spectrum activity of Terramycin** against organisms in the bacterial and rickettsial as well as several protozoan groups.
2. **The promptness of response to Terramycin** in acute and chronic infections involving a wide range of organs, systems and tissues.

Crystalline Terramycin Hydrochloride is available as:

CAPSULES, 250 mg., bottles of 16 and 100; 100 mg., bottles of 25 and 100; 50 mg., bottles of 25 and 100.

ELIXIR (formerly Terrabon). 1.5 Gm. with 1 fl. oz. of diluent.

INTRAVENOUS, 10 cc. vial, 250 mg.; 20 cc. vial, 500 mg.

AS. PFIZER & CO., INC., *Brooklyn 6, N.Y.*

Meat . . . in the Low-Sodium Diet

Clinical experience[1,2] and investigative data[3] indicate that the liberal use of meat may not be contraindicated when sodium intake must be restricted. Because unsalted meat contains only relatively small amounts of sodium, while contributing importantly to other nutrient needs, meat deserves special consideration in very-low-sodium diets, in sodium-poor diets, and in no-extra-sodium diets.

Table I lists the amounts of sodium[3] in three kinds of meat. Table II gives the estimated amounts of sodium in hospital diets planned for cardiorenal vascular patients.[4]

SODIUM IN MEAT[3]

	Sodium Provided by 60 Gm. Serving	Sodium Provided by 100 Gm.
Beef, without bone	32 mg.	53 mg.
Lamb, without fat	66 mg.	110 mg.
Pork, without fat	35 mg.	58 mg.

Table I

SODIUM IN HOSPITAL DIETS[4]

Sodium-Poor Diets*				Very-Low-Sodium Diet†
40 Gm. Protein	70 Gm. Protein	100 Gm. Protein	130 Gm. Protein	70 Gm. Protein
400 mg. Na	500 mg. Na	800 mg. Na	1,000 mg. Na	200 mg. Na

Table II

*Foods prepared and served without salt.
†Weighed diet. May contain 4 oz. of unsalted meat.
(Normal diets contain approximately 4 Gm. of sodium daily.)

Hence, the data here shown indicate that relatively generous amounts of meat may be included in low-sodium diets.

Meat serves well in the therapeutic objective of maintaining a high state of nutrition in patients with congestive heart failure or nephritic edema by providing valuable amounts of biologically complete protein and of B complex vitamins, including the recently discovered B_{12}.

1. Wheeler, E. O.; Bridges, W. C., and White, P. D.: Diet Low in Salt (Sodium) in Congestive Heart Failure, J.A.M.A. *133*:16 (Jan. 4) 1947.
2. Wohl, M. G., and Schneeberg, N. G.: Dietotherapy (Cardiovascular Disease), in Jolliffe, N.: Tisdall, F. F., and Cannon, P. R.: Clinical Nutrition, New York, Paul B. Hoeber, Inc., 1950, chap. 27.
3. Bills, C. E.; McDonald, T. C.; Niedermeier, W., and Schwartz, M. C.: Survey of the Sodium and Potassium Content of Foods and Waters by the Flame Photometer, Fed. Proc. 6:402 (Mar.) 1947.
4. Mayo Clinic Diet Manual, Philadelphia, W. B. Saunders Company, 1949, p. 113.

IN HAY FEVER

Effective

ven when the pollen count is high

TRIMETON, one of the more potent antihistamines, has consistently provided symptomatic relief in a high proportion of hay fever patients regardless of the pollen count.

In *severe* hay fever, at least 75 per cent of patients xperience relief; as many as 90 per cent of patients with *mild* symptoms are benefited. A relatively low incidence of side effects assures uninterrupted therapy for optimum results.

TRIMETON®

(brand of prophenpyridamine)

TRIMETON—indicated in all allergic states responding to antihistamines.

Schering

CORPORATION · BLOOMFIELD, N. J.

TRIMETON

SCHERING

BELIEVE IN YOURSELF!

Doctor, you probably have read a great deal of cigarette advertising with all sorts of claims.

So we suggest: make this simple test . . .

Take a PHILIP MORRIS — and *any* other cigarette. Then,

1. Light up either one. Take a puff — don't inhale — and s-l-o-w-l-y let the smoke come through your nose.

2. Now do exactly the same thing with the other cigarette.

Then, Doctor, BELIEVE IN YOURSELF!

PHILIP MORRIS

Philip Morris & Co. Ltd., Inc.
100 Park Avenue, New York 17, N. Y.

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 562

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

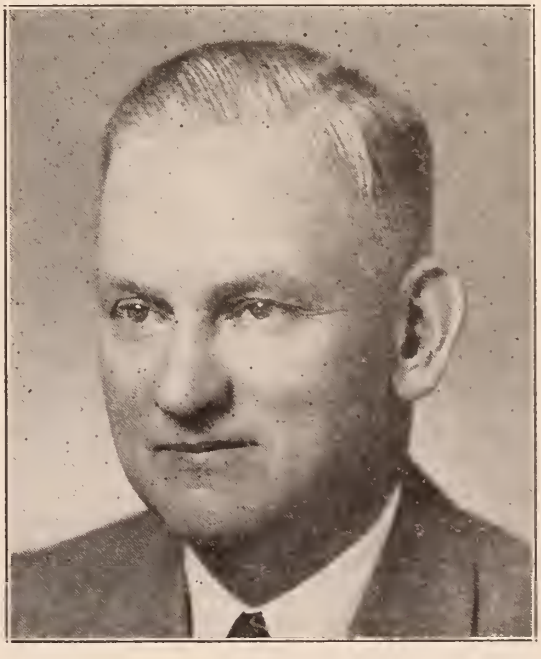
HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month.

VOL. 48, No. 6 JUNE, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

DO YOU KNOW SIGURD JOHNSEN?



Although he doesn't look it (and this is a recent photograph), Sigurd Johnsen was born in 1895. Your newly installed President is a native of Chicago but escaped from that city back in 1922. After marrying a Jersey City girl in 1923, he decided, fortunately for us, to stay in Jersey. He entered college in the early part of 1917, but left a few months later to join the U. S. Navy when this country entered the World War. The first one, that is. He was a yeoman in the Navy all through that war, and after rendering yeoman service, he left the Navy in 1919. He picked up the threads of his college education, won a B.S. degree in 1921, and entered medical school that same year. He was graduated from Cornell University Medical College in 1925, interned first at the Jersey City

Hospital, later at Passaic General. In 1926 he opened his office for private practice in Passaic. For some years he continued with graduate medical studies chiefly in radiology and in gastro-enterology. He is a Fellow of both the Radiological Society of North America and the National Gastro-Enterological Association. He is, in fact, secretary of the latter organization.

Dr. Johnsen has several other accomplishments. He was a founder of the Passaic-Bergen Medical Dental Service Bureau, and for more than a decade was president of that bureau. He was president of the Passaic County Medical Society in 1941. He has just completed a two year tour of duty as chief of staff of the Passaic General Hospital, and is their senior attending gastro-enterologist. His other accomplishments include two children, one now a sophomore at Wellesley, the other a physician who was graduated from his father's alma mater in 1950. He is a Ruling Elder of the Presbyterian Church of Upper Montclair.

Our new President first appeared in the state medical society's galaxy back in 1937 as a member of the Welfare Committee. In 1939 he became chairman of the Committee on Auxiliary Medical Services. By 1943 he was chairman of the Committee on Medical Practice, and two years later became chairman of our state Welfare Committee. In 1946 he was elected to the Board of Trustees, and in 1948 was elected second vice-president of the Society. He has thus been tempered for his present high post by 14 years of top level labor in organized medicine. He assumes the presidency in one of the most troubled times in our country's history. What this year will bring, no one yet knows. But one thing we do know: whatever it brings, Dr. Johnsen will be equal to the task.

LUCIUS F. DONOHOE 1868-1951

As this issue of the JOURNAL goes to press, we are saddened to hear of the death of our Society's Senior Fellow, Dr. Lucius F. Donohoe. He died at his home in Bayonne on May 23, 1951. His death brought to a close an extra-ordinary career of exemplary service to medicine and to mankind. Space and time do not permit a formal obituary at this time; nor, indeed, is one necessary.

Lucius Donohoe was born in 1868. He was graduated from Bellevue Medical School in 1889 and spent most of his professional life in Bayonne. For six rich decades he served as a model physician, giving his patients, his community and his colleagues the best that was in him. And a very superior "best" it was. He was the 132nd President of The Medical Society of New Jersey, and the only one in modern times to have served in that capacity for more than one year. He became President in 1924.

In 1949, at the completion of his sixtieth year of practice, the entire Bayonne community united in paying him a touching and well merited tribute. "We honor him", his fellow-citizens then said, "for his humanity, we esteem him for his charity, we are grateful to him for the services he has rendered to his city, his state, and his nation".

New Jersey medicine and New Jersey citizenry are alike richer for the gifts of his giving through all his long and fruitful life. We of The Medical Society staff find his passing especially poignant. We viewed him with affection and respect arising out of inspiring and friendly contacts throughout fifty years of Annual Meetings. We can wish no nobler sentiment for our Society than the hope that his spirit and memory will linger long among us.

May he rest in peace.

ORIGINAL ARTICLES

THE CANCER PROGRAM IN NEW JERSEY, PART II A.

PAPANICOLAOU SMEARS IN THE DIAGNOSIS OF MALIGNANCY *

WILLIAM G. BERNHARD, M.D., Short Hills, N. J., and
MARTIN RUSH, M.D., Red Bank, N. J.

Since the latter part of the nineteenth century there has been sporadic interest in the diagnosis of malignancy on the basis of the cytologic changes seen in exfoliated cells. But it remained for Papanicolaou to develop improved staining technics and to correlate in a systematic way cytologic changes with histopathologic findings. By his untiring efforts, he developed a practical method for the earlier recognition of cancer on the basis of cytologic findings alone. To those trained in histopathology, this attempt to diagnose cancer by cytologic changes seemed a radical departure, and it has taken some time to convince pathologists that here is a new and valuable diagnostic tool. However, over the last eight years, careful evaluation studies by competent pathologists schooled in this technic have shown that cytologic examination is indeed an important aid in our armamentarium. Accordingly, the Advisory Committee on Cancer Control, well aware of the value of the Papanicolaou method, is endeavoring to establish a service for the study of Papanicolaou smears similar to the Tissue Diagnostic Service which was put into effect in 1947. By this service it is hoped that many physicians will be reached who, at present, do not have access to facilities or pathologists trained in this work. In this way, it is expected that the incidence of early cancer diagnosis will rise sharply.

APPLICATION

The applicability of the Papanicolaou smear to cervical and vaginal fluids, bronchial aspirates, and to urinary sediments cannot be over estimated. Reports from conservative observers indicate that tissue biopsies have confirmed 85 to 98 per cent of positive diagnoses made on the basis of cytologic changes. In cervical-vaginal fluids (where biopsy is unsatisfactory) it may be superior to any other known method. It is useful in the following circumstances:

1. Pre-invasive cancer or intra-epithelial carcinoma has been known to smolder for from six months to 14 years. It is amenable to diagnosis in its early form on the basis of cytologic findings. This should not be construed as replacing the surgical biopsy in grossly obvious lesions.
2. Frequent smears made during radiation therapy will facilitate the study of tumor response, prognosis, and re-occurrence. Such studies will be appreciated by the roentgenologist and the practicing physician.
3. In the all too frequent situation where it is difficult to distinguish between true menopausal symptoms and psychoneuroses, Papanicolaou smears will serve as an index for estrogenic therapy on the basis of the appearance of exfoliated squamous epithelial cells.
4. Papanicolaou smears are useful in the study of sterility and ovulatory cycle.

CLASSIFICATION

The following system of classification is in current practice at most institutions:

Class I. Absence of abnormal or atypical cells.

Class II. Atypical cells present but without abnormal feature.

Class III. Cells with abnormal features but not sufficiently pathognomonic.

Class IV. A fair number of pathognomonic cells in cell clusters.

Class V. Large number of conclusive cells and cell clusters.

The Advisory Committee on Cancer Control is chiefly concerned with increasing the number of "cancer-physical" patients and impressing the practicing physician with the fact that here is a method which bridges the gap

*Prepared for the Advisory Committee on Cancer Control, The Medical Society of New Jersey in cooperation with The New Jersey Society of Clinical Pathologists. The Committee consists of: Dr. William O. Wuester (chairman), Drs. William E. Bray, James S. Gallo, Otto R. Holters, Joseph I. Echikson, W. James Marquis, H. Wesley Jack, Joseph H. Kler, Nicholas M. Alter, Frank Mastroianni, George P. Koeck, Victor B. Seidler, Salvatore Giordano, John L. Olpp. *Consultants:* Dr. Carl E. Weigele, Emil Frankel, Charles C. Hansbury.

between clinical examination and tissue biopsy. While biopsy must be considered as the final authority, the persistent Class IV or V report must not be discarded in the presence of a negative biopsy. Biopsies are representative of small areas whereas exfoliated cells are representative of the surface lining of the entire organ or organs. At the same time, mutilating surgery should never be undertaken on a Class III diagnosis. The ideal plan would be to follow a case by taking repeated smears until it is reported either as Class I or Class IV. A Class IV diagnosis is a definite indication for biopsy. On the other hand, in the face of a repeated Class III diagnosis a biopsy should also be taken.

OBTAINING SMEARS

Vaginal smears should be taken from the posterior fornix which is a natural reservoir

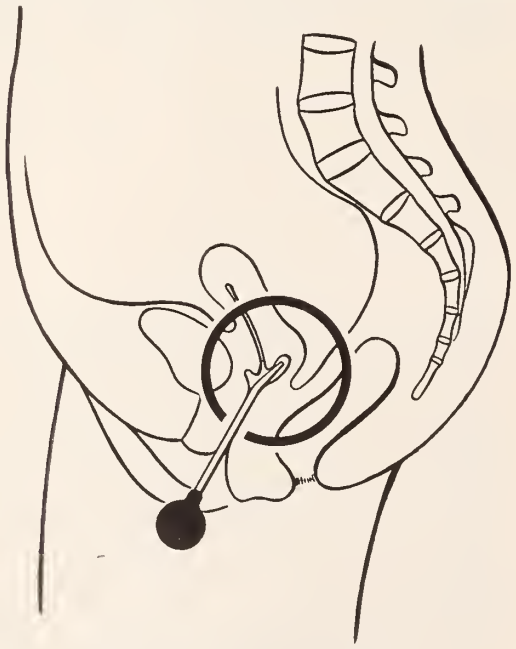


Figure V. Pelvis and Vagina.

of exfoliated cells from the uterus and adnexa. *Cervical smears* may be obtained from a suspicious area or the endocervix. In either case a sterile swab will suffice, which must be

Figure II. Sterile Swab.

quickly smeared on clean, dried glass slides and as quickly immersed, while wet, in the fixing fluid, which is a mixture or equal parts of 95 per cent alcohol and ether. For those who may prefer it, a two-ounce rubber suction bulb may be attached at one end of a thick-walled glass tube about 15 or 20 centimeters

Figure I. Suction Bulb

long with the distal end flamed to a capillary bore. The tube is inserted into the posterior vault, Gentle suction is applied. With the material thus obtained, smears are prepared as described above.

For *endocervical smears,* in lieu of a sterile cotton swab, a laryngeal canula may be used. The patient must be instructed not to douche for twenty-four hours nor should any lubricating jelly be used. Prior to use, each slide should bear a small, plain piece of paper af-

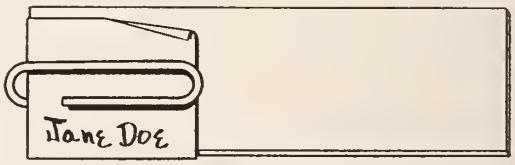


Figure III. Slide.

fixed with a paper clip giving patient's name and source of specimen. This is written in pencil. It serves a double purpose: pencil writing is not affected by the fixing fluid and the paper clip prevents the slides from sticking together.

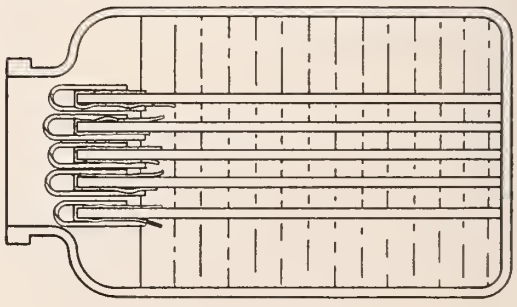


Figure IV. Bottle.

FORMS USED

Special forms are to be completed when smears are obtained. Especially important are age, menstrual history, and whether the patient has been on estrogenic therapy. These forms may be obtained from the American Cancer Society, New Jersey Division, Inc., at 9 Clinton Street, Newark 2, N. J.

SPUTUM AND BRONCHIAL EXAMINATIONS

Carcinoma of the lung, which comprises five per cent of all malignancies, is definitely on the increase. In most cases, about three months will elapse before a patient seeks medical attention. The physician loses seven months, on the average, before a definite diagnosis is established. Ten years ago the average delay was eleven months. Today, with early diagnosis, the *cure rate can be high if pneumonectomy is performed early.* Malignant cells have been repeatedly demonstrated in sputum and bronchial aspirations. One alert technician while studying a routine smear for tubercle bacilli was impressed by clusters of epithelial cells with atypical nuclei. The pathologist, upon being informed, requested further specimens for Papanicolaou studies and a conclusive diagnosis of bronchogenic carcinoma was established. Until recently, many a patient has died of bronchogenic carcinoma in a tuberculosis sanitarium. Because of involved areas inaccessible to bronchoscopic biopsy, carcinoma can too readily be missed. Of 118 cases reported, washings in subsequently proved cases have given a positive diagnosis in 89 per cent as compared with positive bronchial biopsies of 44 per cent. This gross difference was due primarily to lesions being located in inaccessible areas of the lung. Bronchial washings are placed in an equal volume of 95 per cent ethyl alcohol, centrifuged and smears made of the sediment. It is usually necessary to prepare slides with egg albumin and immerse in the fixing fluid only when drying is noticed around the edge of the smear. This will prevent sediment from being removed while in the fixing fluid. Sputum may be prepared as above or expectorated directly into 70 per cent alcohol. The sputum specimen should not be permitted to stand more than several hours to avoid undesirable bacterial overgrowth. Portions of suspicious specimens may be smeared between two slides which are rotated in opposite directions. This will produce a very thin film. With a report of 80 per cent positive results, this method should prove a useful adjunct to the established diagnostic procedures especially in inaccessible areas or where bronchoscopic examination is contraindicated. It must be remembered that a negative result does not exclude the possibility of carcinoma.

URINE EXAMINATION

Since 1864, when Sander first noted shreds of malignant cells in random urine, various workers have suggested diverse methods for the study of exfoliated cells. Today, the Papanicolaou smear consistently in trained hands is a reliable technic. Fifty cubic centimeters of urine are collected with an equal amount of 95 per cent alcohol (catheterized specimens are desirable in female patients) and treated as for bronchial washings. The method is most useful when pyelography discloses questionable masses or when there is hematuria of unknown origin. Prostatic fluid is also amenable to the same procedure.

READING THE SMEARS

Physicians who wish to use this diagnostic service should first familiarize themselves with the simple technic necessary to procure good smears. These smears should be submitted to a pathologist. If none is locally available, it will be necessary to prepare and fix the smears as directed (two to four slides are preferable) and, (before drying occurs) after one hour fixation in ether-alcohol mixture, place a drop or two of glycerine, cover with a clean, dry slide and mail in containers with the necessary clinical information to the pathologist of your choice. Postal regulations prohibit sending inflammable liquids through the mails. As in the case of the diagnostic tissue service, there will be no fee where indigent patients are concerned, whether clinic or private.

NOTE: Forms and containers for mailing

dry slides will be supplied without charge and are available at the American Cancer Society, New Jersey Division, Inc., 9 Clinton Street, Newark 2, N. J.

It is the hope of the New Jersey Society of Clinical Pathologists that this service will supply an additional weapon for the fight against cancer and will stimulate physicians generally to look for cancer in its early stages when it is more amenable to therapy.

79 Minninsink Road
326 Broad Street

HOMOLOGOUS SERUM JAUNDICE FOLLOWING THE USE OF IRRADIATED PLASMA

REPORT OF A CASE *

I. E. Blecher, M.D., Lyons, N. J.

A patient was admitted to the Veterans Hospital in Lyons, N. J., at the age of 40 with a diagnosis of schizophrenic reaction, hebephrenic type. Four years later he developed auricular fibrillation thought to be on arteriosclerotic basis. In 1949 (sixteen years after admission) he was transferred to the medical service for the treatment of pneumonia from which he recovered. He was returned to the psychiatric service, but a year later was again transferred to the medical service because of elevated temperature. It was difficult to obtain a history as he was somewhat drowsy and refused to answer questions.

His throat was moderately injected. Pulse was 120. No adenopathy was found. Blood pressure, right arm in supine position was 62 systolic. Diastolic was not obtainable. Heart sounds were of poor quality, distant, with a ventricular rate of 120, irregular. The abdomen was soft, and there were no palpable masses or viscera. Lungs did not show anything of significance. The impression was that he suffered from a coronary occlusion with myocardial infarction, and that he was in shock. One bottle of 500 cubic centimeters of irradiated plasma was given. This was irradiated normal human plasma which represents a half litre of pooled original plasma which is restored in full volume by adding the same amount of sterile pyrogen-free 0.1 per cent citric acid solution. No preservatives were added. It had been treated with ultra violet irradiation to destroy possible bacterial and viral contamination including the agent or agents of viral hepatitis. X-ray of the chest at that time (and repeated two days later) was negative. Electrocardiography showed the same changes as before: auricular fibrillation with low voltage.

The next day patient's pulse was 80, ventricular rate was 80, still irregular. Blood pressure was 72/58. From that day on, his pressure gradually began to rise until it reached 104/72 on the eighth day. Electrocardiography still showed auricular fibrillation with low voltage. He had 20,000 white blood cells per cubic millimeter. Of these, 81 per cent were polynuclears; 15 per cent were lymphocytes and 4 were monocytes. From then on, blood count gradually became normal. Urinalysis was within normal limits. Urine concentration test showed specific gravity ranging from 1.012 to 1.014. Patient's appetite improved; he began to sit up, but was still under treatment on the medical service. Electrocardiograms still showed the same changes: auricular fibrillation with low voltage. His temperature fluctuated between 98.6 and 100

* Reviewed in the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are the result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

except on the day of admission when it was 102.6. On August 23, which was two months later, we noted that patient was somewhat jaundiced and had a temperature of 101. Physical examination was negative except for the auricular fibrillation. Blood pressure was 106/70. He did not complain of anything at that time but later on reported pain in the abdomen. The abdomen was soft with no palpable masses or viscera. Liver and spleen were not palpable. The jaundice gradually deepened and the patient became nauseated. He vomited on occasions. His temperature was between 99 and 101 until August 30 when it became normal and remained so until September 12 when it became sub-normal, fluctuating between 96 and 98 until the day of his death. His condition gradually deteriorated, jaundice deepened and he died on September 17.

X-ray and laboratory findings: Gall bladder series on September 7 failed to visualize the gall bladder but in view of the patient's jaundice this would not necessarily be indicative of gall bladder disease. A Barium enema did not show evidence of obstruction or organic defect. On August 24, the following laboratory reports were made: Cephalin flocculation 3 plus; icteric index 85; serum bilirubin 23.4 milligrams per cent; serum alkaline phosphatase 10.2 units (King Armstrong normal 4 to 12 units); serum amylase 42 milligrams per cent. Urinary bilinogen was positive 1 to 10 diluted. Leucine and tyrosine were not found in the urine. Another cephalin flocculation was repeated on September 13 and showed 4 plus. Serum alkaline phosphatase 11 units (King Armstrong normal 4 to 12 units). Prothrombin time 53 per cent of normal (control 16 seconds, patient 30 seconds).

Diagnosis: Homologous serum jaundice.

Autopsy findings of liver: The liver weighed 1020 Grams. Its surface was finely pebbled with occasional slightly larger depressions, most of which were less than 5 millimeters in size. The entire capsule was slightly thickened and opaque. In several areas, deep red slightly nodular elevations were noted. These averaged 3 millimeters in diameter. The liver was moderately firm in consistency and through the capsule had a greyish-brownish-red color. On section, there was no gross distortion of the architectural pattern but the normal lobular arrangement was difficult to recognize. Small depressed areas were seen surrounded by pale, yellowish-brown zones. Occasional reddish-yellow areas were noted. The intrahepatic bile ducts, and portal and hepatic veins showed no gross changes.

The capsule was slightly thickened by pink-staining fibrous tissue. The normal architectural pattern was distorted. The lobules that remained were of varying size and configuration. This was due to extensive bands of fibrous tissue of varying density which traversed the liver substance and subdivided it into irregular segments. A few of these were composed of dense fibrous tissue with relatively little cellular elements. In other places, many young fibroblasts were seen. Throughout these fibrous strands, which essentially involved and apparently arose from the portal fields, there were diffuse moderate to dense infiltrations by leukocytes. These were both of the round cell and (to a lesser extent) the polynuclear variety. Within these fibrous sheets, bile ducts were found. These were abnormal in that most were of assymetrical pattern with twisted and tortuous lumens; many areas revealed marked increase in the number of bile ducts of this abnormal variety. In many areas there was active proliferation of bile duct epithelium with resulting double nuclei, bizarre giant nuclei and large vesicular forms with prominent nucleoli. Most of the bile ducts contained little or no bile although polynuclear cells were seen in many of them. The parenchymal cells proper showed disorganization of the lobular pattern. In many areas, the cells were swollen and had vesicular nuclei with prominent nucleoli. Within some of the cells, were bile pigment granules.

Most striking was the dilatation and prominence of numerous intercellular bile canaliculi which were filled with brown and green bile. In a few areas, there was evidence of regeneration of parenchymal tissue as evidenced by large nuclei or double nuclei. Many of the liver sinusoids were wide and Kupfer cells were readily visualized. Active phagocytosis was not a prominent feature. Almost everywhere, the central veins were difficult to distinguish evidently being in a collapsed state.

SUMMARY

A psychotic patient with arteriosclerotic heart disease and auricular fibrillation was given irradiated plasma on June 7. Seventy-six days later, he developed jaundice with fever and markedly abnormal liver function tests. A diagnosis of homologous serum jaundice was made. The autopsy corroborated the diagnosis.

Veterans Hospital

DIGILANID* IN THE MAINTENANCE OF DIGITALIZATION

ITS EFFECTIVENESS AS COMPARED WITH WHOLE LEAF DIGITALIS

AARON E. PARSONNET, M.D.,† ARTHUR BERNSTEIN, M.D.,
EMANUEL KLOSK, M.D., HENRY L. KUPERMAN, M.D.,
FRED WEISS, M.D., and FRANKLIN SIMON, M.D.,
Newark, N. J.

Recent work by Gold[1] has launched a controversy as to which digitalis preparation was most suitable for digitalization and which should be used for maintenance of digitalization. Some physicians feel that whole leaf preparations are advantageous. This preference is based on two contentions:

(a) The whole leaf preparations contain the natural combination of glycosides with non-cardio-active tannins, chlorophyl, et cetera; and

(b) These whole leaf preparations have been used for so long that their actions are well known.

At our clinic at the Newark Beth Israel Hospital, we felt that we would like to use a preparation that represented both the years of experience and the desirable glycoside combination of the whole leaf; yet which would give none of the local irritant effect. And of course we looked for a stable preparation which would not vary in cardio-activity.

The ideal substance seemed to be Digilanid* which does combine these qualities. However, doubt has been expressed about the extra-vagal effectiveness of this preparation for digitalization. It was felt therefore that a pilot study should be accomplished before using Digilanid* on a full patient load in the cardiac clinic. In this way, the various aspects of Digilanid* therapy could be studied in a small, manageable and easily controlled group.

We present herewith the results of this project. A larger group should next be explored as a statistical control.

First a word about the nature of Digilanid.* Stoll and his colleagues[2] first prepared the pure glycosides of *Digitalis lanata* in 1933. These substances are extracted from the whole leaf in definite quantitative proportions and yield aglycones on hydrolysis. The three lantosides are designated as A, B and C, and account for 46, 17 and 37 per cent respectively of the final product. Lantoside A is $C_{49}H_{76}O_{19}$ and yields digitoxin on hydrolysis. Lantoside B is $C_{49}H_{76}O_{20}$ and yields gitoxin. Lantoside C is an isomer of $C_{49}H_{76}O_{20}$ and on hydrolysis yields digoxin. By combining these three *Digitalis lanata* glycosides in quantitative fashion, Stoll[2] obtained a digitalis preparation of pure chemical composition which has since been trademarked under the name of Digilanid.* The preparation is stable and can be chemically assayed.

1. *Subjects:* 60 ambulatory patients from the cardiac clinic were chosen. Some were being treated for congestive heart failure, others for auricular fibrillation, all were being given digitalis. Table I indicates the composition of this group.

TABLE I

Males	28
Females	32
Age group	20 to 79 yrs.
Largest number between	60 to 69 yrs.
Hypertensive and arteriosclerotic—cardiovascular disease	33
Arteriosclerotic cardiovascular disease	11
Rheumatic heart disease	14
Coronary artery disease	2

2. *Previous Medication:* 42 of the patients had been initially digitalized with a whole leaf preparation. The others were originally digitalized (oral slow method) and then main-

* Digilanid is the Sandoz Chemical Works registered tradename for a preparation containing an isomorphic crystalline glycoside of *Digitalis lanata.*

† This work comes from the Newark Beth Israel Hospital cardiac clinic of the late Aaron E. Parsonnet. Dr. Parsonnet began this project shortly before his death on August 20, 1950. Dr. Bernstein is an adjunct in Medicine at the Newark Beth Israel Hospital, and Dr. Klosk is an Assistant in Medicine at that institution. The other authors are all clinical assistants in Medicine at the Newark Beth Israel Hospital.

1. Gold, H., *et al.*: Journal of Pharmacologic and Experimental Therapy, 73:212 (October 1941).
2. Stoll, A., and Kreis, W.: Muenchener Medizinische Wochenschrift, 80:723 (May 12, 1933).

tained with Digilanid.* The 42 patients originally digitalized with whole leaf were transferred to Digilanid,* by giving one tablet of Digilanid* for each cat unit of whole leaf. This substitution did not appear to have any effect on the patients' cardiovascular status. These findings agree with those of Rothlin,[3] that a tablet of Digilanid* containing 0.333 milligrams of pure glycosides equaled one cat unit of whole leaf. A small group of patients noted less gastric irritation on the new medication. (This is a subjective reaction and depends on the patient's own feeling at the moment of changeover.) These findings, in general, are in agreement with previous work in which Digilanid* was found to be just as effective and possibly less irritating locally to the gastro-intestinal tract, than whole leaf preparations.[4]

3. *Auricular Fibrillation as an End Point of Digitalis Medication:* Digitalis slows the ventricular rate in auricular fibrillation through two mechanisms:

A. Central action on the vagus. This increases the block between the auricle and ventricle, thus slowing the ventricular contractions. Adequate doses of atropine will inhibit this action (vagal).

B. Direct action on the heart muscle itself will produce a slowing of ventricular contractions (extra-vagal).

(A) The ventricular rate of 13 patients who had been digitalized with a whole leaf preparation was compared with the ventricular rate after they had been shifted to Digilanid* (as described above). Average ventricular rate for six months prior to the shift was compared to the average ventricular rate for the first six months on Digilanid.* A uniform method of measurement was employed during both periods. In none of these 13 patients was there measurable difference in ventricular rate while taking either a whole leaf preparation or Digilanid.* This again shows that Digilanid 0.333 milligrams is equivalent to one cat unit of digitalis whole leaf.

(B) Two experiments were performed on 11 ambulatory patients to determine whether digitalis whole leaf or Digilanid* differed in their vagal and extra-vagal effects (see Table II). All of these had been digitalized with whole leaf prior to this study and showed various stages of right and left failure. Some of these patients were receiving mercurial diuretics in order to remain ambulatory.

TABLE II-A
PATIENTS USED FOR ATROPINE EXERCISE TESTS

Males	3
Females	8
Age group	20 to 79 yrs.
Hypertensive and arteriosclerotic—cardiovascular disease	4
Arteriosclerosis	2
Rheumatic heart disease	5

TABLE II-B

Case	*Age*	*Sex*	*Diagnosis*
1.	63	M	Hypertensive and arteriosclerotic heart disease, silicosis (cor pulmonale) E.H.
2.	25	M	Rheumatic heart disease. E.H. M.S. M.I.
3.	71	F	Arteriosclerotic heart disease. E.H.
4.	66	M	Arteriosclerotic heart disease. Coronary sclerosis. E.H.
5.	65	F	Rheumatic heart disease. Arteriosclerotic heart disease. E.H. M.I. M.S. Left hemiplegia.
6.	26	F	Rheumatic heart disease. E.H. M.I. M.S.
7.	66	F	Hypertensive and arteriosclerotic heart disease. E.H.
8.	45	F	Rheumatic heart disease. E.H. M.I. M.S. Parkinson's disease.
9.	70	F	Hypertensive and arteriosclerotic heart disease. E.H. LBBB.
10.	58	F	Hypertensive and arteriosclerotic heart disease. R.H.D. M.S. M.I. A.I.
11.	58	F	Rheumatic heart disease. E.H. M.S. M.I.

1. The effect of large doses of atropine on the ventricular rate was observed. The method used was a modification of the Gold[5] technic. The ventricular rate was counted after the patient had been resting (prone) for half an hour. Atropine sulfate grains 1/30 (2.16 milligrams) was then given subcutaneously. (Gold[5] had found this dosage sufficient to abolish completely the vagal control of ventricular rate of nine bed patients. Gold[5] administered atropine intravenously. Since our patients were ambulatory it was felt that the subcutaneous route might be safer.)

The ventricular rate was counted at the apex. Counts were taken for 30 seconds at five minute in-

3. Rothlin, E.: Muenchener Medizinische Wochenschrift. 80:726 (May 12, 1933).
4. Sieve, B. F.: Medical Annals of the District of Columbia, 11:47 (February 1942).
5. Gold, H., *et al.*: Journal of Clinical Investigation, 18:429 (July 1939).

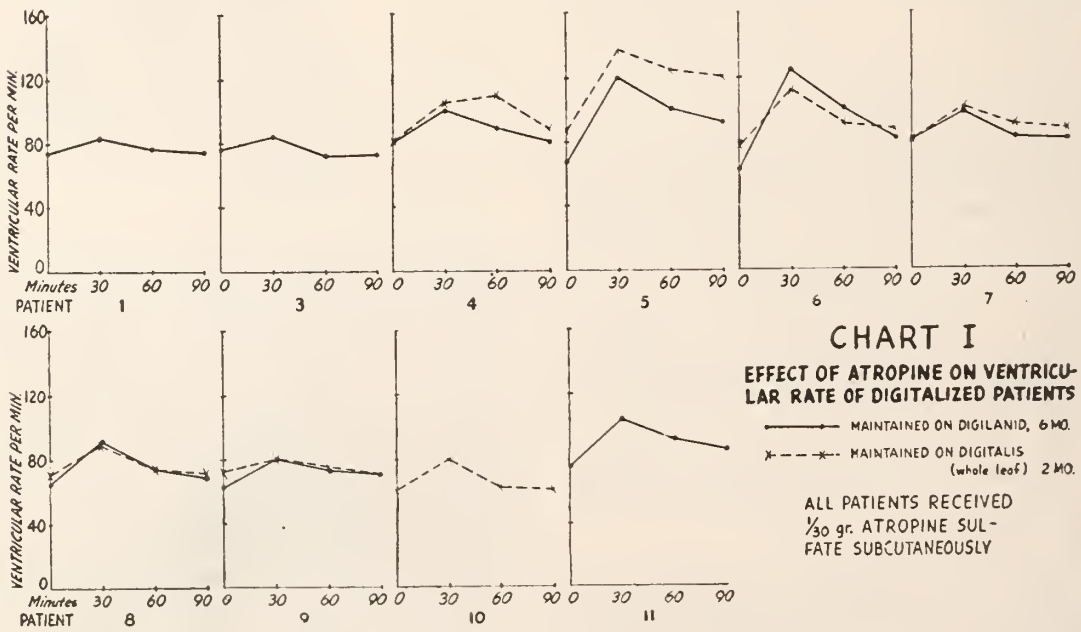
tervals. Maximum acceleration was observed approximately 25 minutes after administration of atropine. Partial recovery from atropine effects began at the end of 60 minutes and was almost complete after 90 minutes. Some delay in recovery may be due to the restlessness induced by the atropine. It is now generally believed that complete digitalization (both vagal and extra-vagal) is indicated if the ventricular rate rises only to 100 or less following atropinization. Insufficient digitalis will fail to produce extra-vagal block, therefore, a rise of ventricular rate beyond 100 per minute indicates incomplete digitalization.

Nine patients maintained on Digilanid* for a period of six to eight months were subjected to this test. Seven of these were then changed to digitalis whole leaf and maintained on this medication for two months prior to repeating the atropine test.

Six of the nine on Digilanid* were properly digitalized since their ventricular rate did not increase past 100 beats per minute following atropinization (1/30 grain). In the remaining three cases, the ventricular rate exceeded 100 per minute indicating insufficient digitalization, since only the vagal effects were apparent (see Chart I). The results for the seven patients changed to digitalis leaf are also shown on this chart. Four of these were completely digitalized; three were not.

These results indicate that Digilanid* and a digitalis whole leaf preparation do not vary in their action on the ventricular rate in auricular fibrillation (both in vagal and extra-vagal mechanisms). Only one case (No. 4) was completely digitalized with Digilanid,* while that same patient was only partly digitalized with the whole leaf preparation. The difference in response is so slight that we do not consider it of significance. It is evident from our study that a resting ventricular rate between 60 and 80 is *not* a good criterion of complete digitalization since three cases with such a rate did not show full digitalis effect following atropinization.

2. *The effect of exercise on the ventricular rate of auricular fibrillation patients.* A modification of the LaPlace[6] and the Modell[7] technics was employed. The ventricular rate was counted by auscultation for one minute after the subject had rested in the sitting position for 30 minutes. The patient was then walked ten times over a two step staircase. (Each step was nine inches high and built according to Master's two-step test specifications.[8]) No set rate for walking these steps was specified. Each patient selected his own pace. The time varied from 60 to 105 seconds for the entire series of eleven patients. After walking the steps the patient returned to his chair. The ventricular rate was counted at 15 second intervals for a period of three minutes, from the moment he sat down. We agree with LaPlace's statement[6] that the ventricular rate during the first 15 seconds after ex-



6. LaPlace, L. B.: American Heart Journal, 26:536 (October 1943).
7. Modell, W., *et al.*: Journal of the American Medical Association, 116:2241 (May 17, 1941).
8. Master, A. M.: American Heart Journal, 10:495 (April 1935).

ercise is the same as the maximum rate during exercise. This is usually called the "maximum exercise rate". It is important to note, as did Modell,[7] that the patient with auricular fibrillation has acceleration of the ventricular rate during exercise chiefly, if not entirely, because of a decrease in vagal tone. Modell[7] observed in an exercise tolerance experiment that the ventricular rate in patients with auricular fibrillation will not rise appreciably beyond 100 beats per minute if the patient has been fully digitalized (through both vagal and extra-vagal mechanisms).

Eleven patients maintained on Digilanid* for six months were subjects for this test. Six of these were then placed on whole leaf medication for two months and again tested. The ventricular rate of six of the patients on Digilanid* rose to less than 100 per minute. These were considered to be completely digitalized (see Chart II). We then attempted to digitalize further the remaining five patients so as to keep the postexercise ventricular rate below 100 beats per minute. Three of these patients (cases 5, 6, 7 in Chart III) had been on one tablet per day of Digilanid* when the test was first done. Their dosage was increased to two tablets daily and kept at this level for two weeks. The ventricular rates were below 100 per minute when the test was repeated.

Case No. 10 showed only vagal effect on one tablet of Digilanid* daily. When the dosage was increased to 2 tablets, maximum ventricular rate increased to 144 per minute after exercise but returned to 76 after three minutes. Because she complained of mild nausea on 2 tablets daily, it was necessary to alternate 1 and 2 tablets daily. On this schedule the patient felt well. In spite of the high dosage of

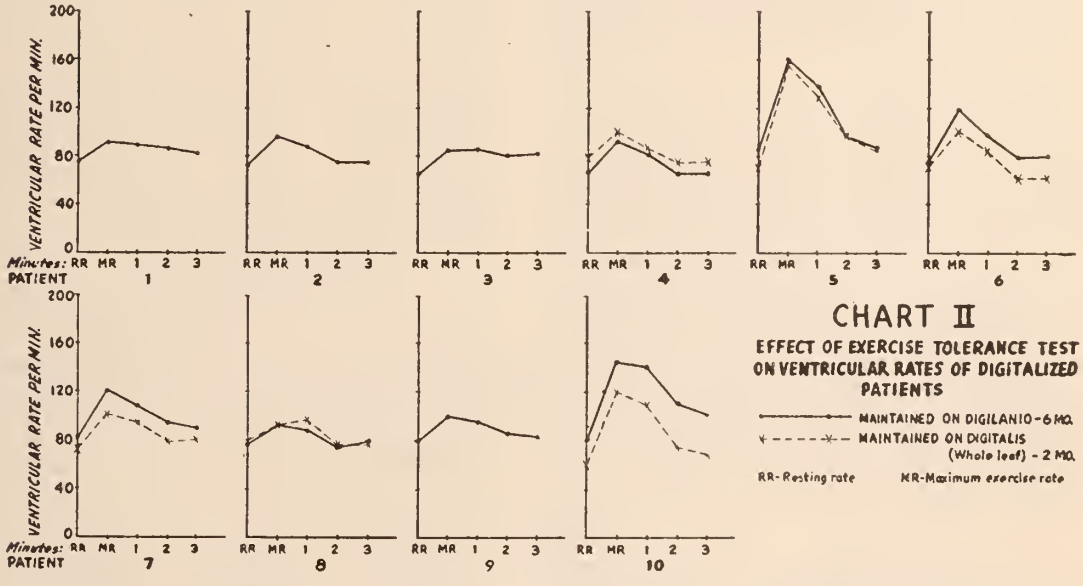


CHART II

EFFECT OF EXERCISE TOLERANCE TEST ON VENTRICULAR RATES OF DIGITALIZED PATIENTS

MAINTAINED ON DIGILANID-6 MO.
MAINTAINED ON DIGITALIS (Whole leaf) - 2 MO.

RR-Resting rate MR-Maximum exercise rate

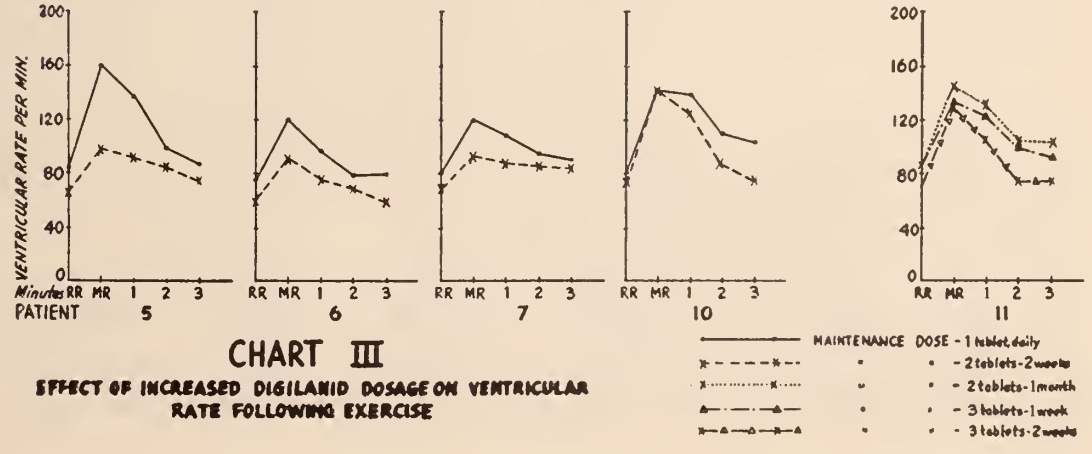


CHART III

EFFECT OF INCREASED DIGILANID DOSAGE ON VENTRICULAR RATE FOLLOWING EXERCISE

Digilanid* we were unable to achieve extra-vagal digitalization.

Case No. 11 was similar. This patient had been on 2 tablets of Digilanid* daily for one month when the first test was done after taking one tablet daily for five months. Dosage was increased to 3 tablets, but it was not possible to lower the ventricular rate below 100 beats per minute. Because of slight nausea dosage was reduced to 2 tablets per day. She appeared well controlled except following exercise.

These two cases may fall into the category described by Modell.[7] Some patients (especially those in advanced failure) show an accessory mechanism for acceleration which comes into play during extreme physical effort. These two cases were in advanced failure and required mercurial diuretics to aid in controlling the failure. Since the nature of this mechanism is unknown, it is difficult to conclude whether or not these patients were completely digitalized, since the tachycardia could result from this mechanism.

Of the six patients changed to whole leaf digitalis three appeared to be completely digitalized as their ventricular rate remained below 100 beats per minute following exercise (see Chart II). Case 10 was previously described as showing tachycardia resulting from a mechanism occurring in severe failure. This patient when atropinized appeared to be completely digitalized (both vagal and extra-vagal) since the ventricular rate remained below 100. It is, therefore, not possible to state definitely that this patient was not completely digitalized since there is the possibility that tachycardia apparent after exercise might be due to a mechanism noticed in patients in advanced heart failure.

3. *Disappearance of Digilanid* toxic effects:* Batterman[9] showed that the therapeutic effects of Digilanid* became apparent after 45 to 76 per cent of the toxic dose had been administered.

In our experiments, six patients with auricular fibrillation, who had been maintained satisfactorily, were rendered toxic in order to determine primarily how quickly signs of toxicity would wear off. These patients were seen daily and the Digilanid* was administered in the presence of the physician to be sure of the dose taken (see Table III). The following dosages were necessary before toxic symptoms appeared:

3 patients required 4 times maintenance dose for 48 hours.
1 patient required 4 times maintenance dose for 24 hours.
1 patient required 2 times maintenance dose for 48 hours.
1 patient required 4 tablets for 9 days.
plus 5 tablets for 6 days.
plus 6 tablets for 3 days.

Toxicity was recognized by clinical symptoms rather than by electrocardiographic changes. Toxicity occurred at the same time

9. Batterman, R. C., *et al.*: Annals of Internal Medicine, 14:2058 (May 1941).

TABLE III.

Case	Resting Rate	Maintenance	No. Tablets Required for Toxic Signs	Signs of Toxicity	Return to Normal	Mercurial Diuretic
1.	78	1 tablet*	8—(2 days)	VR — 53 Nausea	4 days VR — 73	1 weekly
4.	80	1 tablet	84—(18 days)	VR — 53 Nausea Anorexia	3 days VR — 60	Intermittent
5.	84	1 tablet	8—(2 days)	VR — 50 Nausea Vomiting	4 days VR — 72	None
6.	78	1 tablet	8—(2 days)	VR — 58 Nausea Vomiting	3 days VR — 74	None
7.	84	1 tablet	4—(1 day)	VR — 48 Nausea	3 days VR — 74	None
10.	70	2 tablets	8—(2 days)	VR — 56 Nausea Scotomata	2 days VR — 70	1 weekly

Note— * One tablet of Digilanid* equals 0.333 milligrams. In all ten of these patients the beginning recovery period was one day.

in both those patients who required mercurial diuretics and in those who did not. Signs of toxicity began to disappear within 24 hours after the drug was discontinued. The ventricular rate increased to 60 or more in that time, while anorexia and nausea persisted a little longer. Full recovery occurred within 24 to 48 hours in all six cases. On the basis of this experiment we concluded that the rapidity with which Digilanid* is excreted is such that this is a safe drug. Any toxicity or over-digitalization disappears quickly after stopping medication.

DISCUSSION

These studies show that *adequate doses* of Digilanid* have both vagal and extra-vagal effect on the heart as shown in cases of auricular fibrillation. It was not feasible to use the resting ventricular rate for evaluation of digitalization. Effective digitalization could be determined only by employing an exercise tolerance test. Digilanid,* like all other digitalis preparations, must be used in such dosage as to obtain full digitalizing action, without reaching the toxic level. This dosage must be adjusted to meet the requirements and reactions of the individual patient.

The exercise test was interesting in that some evidence was obtained corroborating Modell's observation[7] of an existing mechanism causing tachycardia following exercise in heart failure patients. This mechanism is not observed in the same patient following atropinization. The increased ventricular rate in patients with heart failure who are exercised does not necessarily indicate incomplete digitalization.

We corroborate the findings of others[4, 10, 11, 12, 13, 14, 15, 16, 17] that Digilanid* is similar in therapeutic action to whole leaf medication, and that it has certain marked advantages over the latter. These advantages are:

1. It consists of chemically pure glycosides which can be standardized by chemical methods.
2. It is constant in action and does not deteriorate upon standing.
3. It causes less gastric irritation.
4. It has certain psychic advantages; patients seem to prefer it to the whole leaf preparation.

Digilanid* is advantageous also in that it has a wide therapeutic margin of safety. In addition, its rate of excretion is such as to achieve complete digitalization through cumulative effects. Further, even if toxic symptoms appear, they are rapidly dissipated. We, therefore, feel that Digilanid* can be used with impunity even in patients not under close medical supervision.

On the basis of our own findings we agree with Batterman, Holman, and DeGraff[9] that Digilanid* fulfills all the criteria for an acceptable digitalis preparation.

SUMMARY AND CONCLUSIONS

1. Digilanid* is composed of pure glycosides in the same proportions found in the whole lanata leaf. It is stable and uniform in composition.

2. Digilanid* exerts activity on both vagal and extra-vagal mechanisms of the myocardium when given in adequate dosage.

3. We find that 0.333 milligrams are equivalent to one cat unit of the conventional whole leaf preparation.

4. Our results following exercise of apparently adequately digitalized patients in advanced heart failure indicate the existence of an accessory mechanism causing tachycardia.

5. A resting ventricular rate of 60 to 80 is not necessarily an indication of adequate digitalization.

6. The toxic effects of Digilanid* are dissipated rapidly.

7. Digilanid* is an acceptable digitalis preparation since it fulfills all the usually accepted criteria for such.

10. Adams, W., and Gregg, L.: American Heart Journal, 19:576 (May 1940).
11. Rimmerman, A. B.: American Journal of the Medical Sciences, 209:33 (January 1945).
12. Batterman, R. C., and DeGraff, A. C.: American Heart Journal, 34:663 (November 1947).
13. Burstan, J.: Cincinnati Journal of Medicine (formerly, *Journal of Medicine*) 19:394 (October 1938).
14. Hrenoff, A. K.: Medical Record (New York 3, N. Y.), 151:175 (March 6, 1940).
15. Hrenoff, A. K.: Western Journal of Surgery, 48:757 (December 1940).
16. Friend, A. B.:Northwest Medicine (Seattle), 40:53 (February 1941).
17. Tandowsky, R. M.: Medical Times (New York 7; formerly *Long Island Medical Journal*), 77:275 (June 1949).

89 Lincoln Park

CORTISONE DOSAGE IN SYDENHAM'S CHOREA

MILTON CUTLER, M.D., Hammonton, N. J.

Sydenham's chorea is generally believed to be a manifestation of rheumatic fever. The basal ganglia, cerebral hemispheres and brain stem show perivascular infiltration, cell infiltration into nerve tissue, and proliferative endarteritis. Massell[1] reported two patients with chorea, one of whom improved after ten days of treatment with ACTH (30 milligrams daily). The other patient showed no improvement with the same medication. He does not state how early in the disease this treatment was initiated. Aaronson[2] reports two cases in which cortisone was apparently ineffectual. The therapy was initiated four weeks and two weeks respectively after symptoms were noted. "Maintenance" dose was approximately 50 milligrams daily after a one hundred milligram initial dose. Dosage in children is believed to approximate that of adults.

The following case history may illustrate the necessity of adequate dosage and early administration of cortisone in chorea.

A 12 year old boy weighing 70 pounds had a sudden onset of purposeless uncontrolled movements of the extremities and face especially pronounced on the right side, with grimacing, difficulty in speaking and generalized weakness. Symptoms progressed rapidly.

On examination three days later, the patient showed uncontrolled, continuous purposeless movements of the arms, legs, trunk, and face, especially pronounced on the right side. His speech, which was not understandable, could be described as "throaty". He was unable to sit up, unbutton his clothes, and could not grip the examiner's hand. There were no meningitic signs. Temperature was normal, pulse was 86, regular and well sustained. Blood pressure was 96/60. There were no heart murmurs, gallop, or arrhythmias. Heart configuration was normal fluoroscopically. Electrocardiogram was essentially normal. Blood count and urinalysis were normal and a sedimentation rate (Cutler method) was 5 millimeters in one hour.

He was put to bed, given Cortone* tablets, 300 milligrams the first day, 200 the second day, and 100 daily thereafter. He was weighed daily and total urinary output recorded. On the second day of treatment a fairly loud blowing untransmitted mitral systolic murmur was first heard. This murmur was definitely *not* present the day before. It has persisted throughout the course of his illness but is now definitely softer. On the fifth day of treatment practically all symptoms had rapidly disappeared. On the seventh day, dosage was lowered to 75 milligrams a day. Within three days thereafter, there was a return in most of his symptoms, including uncontrolled movements and grimacing. Dosage of 100 milligrams daily was resumed and within two days there was once again a rapid and complete improvement. Three days later, due to economic pressure, the dosage was again dropped to 75 milligrams, and within four days there was a relapse which was as severe as the first one. This too, was just as rapidly and completely relieved within two days by an increase in dosage to 100 milligrams daily.

After six weeks of therapy, the dosage of Cortone* was gradually reduced so that within eight weeks the drug was stopped. There was no weight gain, urinary output was normal with no other visible side effects. There are no signs of chorea at present.

Cortisone in this patient seemed to have exerted a definite effect on the course of the child's chorea. The mitral systolic murmur remained, but decreased in intensity. Electrocardiogram is still normal.

The mode of action of cortisone or ACTH remains obscure. In rheumatic carditis and arthritis, these drugs seem to shield the end organ from the deleterious influence of the disease process, until it has gone into a "natural" remission. This may well apply to chorea in view of the similarity of its pathology to that of some of the other cortisone-susceptible diseases.

SUMMARY

Cortisone exerted a definitely beneficial effect in Sydenham's chorea in a boy of 12. There seemed to be a critical level in dosage. Early initiation of therapy and adequate dosage is stressed.

* Cortone is the registered tradename of a brand of hydroxy corticosterone acetate prepared by Merck and Company, Inc.

1. Massell, B. H., and Warren, J. E.: Journal of the American Medical Association, 144:16 (December 16, 1950).
2. Aaronson, N., *et al.*: Journal of the American Medical Association, 145:1 (January 6, 1951).

554 Bellevue Avenue

SOME INTERESTING FACTS IN THE LIFE OF A FAMOUS SURGEON*

Henry B. Orton, M.D., Newark, N. J.

Dominique Larrey[1] was born in France in 1769—the same year that saw the birth of his idol, Napoleon. One of his uncles was a most remarkable and outstanding professor of the College of Surgery at Toulouse. At fourteen, he was admitted to his uncle's hospital. Possessed with a passion for anatomy, he gained in competition, after his first year, the role of "Sub-Aid", when he was barely 15 years of age. He prepared lessons in anatomy for his Uncle Alexis; at the same time pursuing the study of surgery, medicine, obstetrics and materia medica. At the age of 20 he filled the function of a chief of clinic, of our day, performing urgent operations; and he replaced his chief of service when he was absent. Such is the first period of the scientific youth of Dominique Larrey. He continued his courses by Louis at the clinic of Desault.

Young Larrey, on his way to Brest during the early part of his career, joined in conversation with a village surgeon who was going to the city to consult one of his confreres about a patient suffering from a strangulated hernia. Larrey hid his qualifications, but by the sagacity of his questions, his interlocutor proposed that Larrey visit his patient. He not only diagnosed the trouble but operated on the man as well, with good results. All this when he was but 23 years of age!

In 1788 Larrey was again in Paris pursuing lessons under Louis, Sabatier and Desault. But there was already breaking out in the whole of France, the preludes of the Revolution.

The first struggle between the people and the military took place with many casualties on both sides who were transported to the Hotel Dieu in the rooms of Desault. Larry who was attached to this surgeon, saw him lay down rules of treatment of the wounded; he learned to restrain the large debridements of wounds that inconveniently provoked muscular herniae; to transform a complicated wound to a simple one, keeping alive the ends of wounds and approximating them by suture; to treat methodically the fractures which accompany lesions from firearms, and to discern the cases in which amputation was necessary.

A vacancy occurred at the Invalides under Sabatier. A competitive examination was held and Larrey won first place. Politics intervened and Larrey's name was crossed off the list. This abuse of power was never forgotten by Larrey, and he retained a profound aversion against administrative iniquities during the rest of his life.

The revolution having started, we find Larrey taking part in the capture of the Bastille by inducing all his 1500 comrades of the College of Surgery to march against the tyrants. This historic incident in the life of Larrey is a revelation, for none of his biographers[2] knew it. Boyer, who became first surgeon to the Emperor was with Larrey.

In 1792, the Council of Health, in accordance with the proposal of Sabatier, appointed Larrey (then only 26 years old) to serve in the Army of the Rhine, as Surgeon-Major of the hospitals. He established a corps of nurses and litter bearers, and organized field hospitals. Larrey proposed an innovation which has been realized only in our day by the Geneva Convention, the neutrality of wounded men, and of hospitals and ambulances.

At the capture of Spire, September 30, 1792, Larrey was put under arrest for having exposed himself too audaciously going to the aid of the wounded. He spent all night and the following morning operating. This battle saw the wounded dressed on the spot.

Larrey instituted courses in anatomy and surgery in his hospital to all his assistant surgeons.

The initiative of Larrey is shown at Wurmser when the army was in full retreat. He goes in search of the commanding general to remind him of his duties and begs him to go to

* Read before the Practitioners Club, November 29, 1950.

1. Some biographers fix the year of his birth as 1766.

2. The standard biography of our subject is Paul Traire's *Dominique Larrey*, published in Tours, France, in 1902.

the battlefield. This measure of a 26-year old surgeon is not a common trait. The plan of Larrey's mobile hospitals was laid before the generals. They recommended his innovation to the convention. He left the army of the Rhine for Paris in 1794.

Larrey's plan of organization has remained one of his greatest claims to glory. Assistance to the wounded is a very modern creation. Larrey had the ear of the Sovereign and was fortunate in that these services were placed under his direction. Larrey himself had conquered, despite his youth, by his services, his devotion, and his courage, a considerable authority that he used to better the lot of the soldiers, and the well-being of his wounded. He conceived and put into effect gathering the wounded and dressing them under enemy fire. This act of brilliant initiative was the prelude of a profound transformation in surgery of war, and raised it to a sublime height. It saved from death thousands of men. It strengthened the morale of the soldiers. It ennobled the role of the surgeon, to whom they could no longer deny the character of a combatant, since he was fighting without arms, for the fatherland and humanity, in the very midst of battle. Larrey's mobile ambulance, under the direction of the Surgeon-in-chief of the army, each included a staff surgeon, two aides, 12 assistant aides, administrative personnel and nurses; in all, 340 individuals. It also had 12 light carriages, and 4 heavy ones. In the mountainous countries, mules and pack saddles were used. In the campaign of Egypt, Larrey used camels.

Larrey married on March 4, 1794. After his marriage he was accused of having picked up in his ambulance, a wounded Austrian prince and having obtained his passage to Germany. The charge was true, and Robespierre wanted to take it before the tribunal. Fortunately Barrere defended Larrey against Robespierre. Larrey escaped the guillotine.

During the embarkation of the Army for Corsica, Larrey first met General Bonaparte. Percy and Larrey remained at the head of military surgery during the entire administration of Napoleon.

In March 1793, following the execution of Louis XIII, we find Larrey with the army of the Pyrenees. He did not remain there long, for he was soon ordered to Toulon at the head of the surgical service for the Mediterranean in 1795. Here again he conducted courses in surgery and anatomy for the doctors in the army. A short time later, at the age of 30, he was named Professor of Anatomy and Surgery at Val-de-Grace. He demonstrated physiology, anatomy, pathologic anatomy and bedside teaching. The most interesting cases, were the object of weekly conferences. Larrey remained here about one year. He then departed for Italy, where Napoleon asked him to organize his mobile ambulance. On his way Larrey sees the miserable aspect of the country, and notes the pathologic state of the population. He observed the prevalence of goiter, with which almost all the inhabitants are afflicted. He judges the association of cretinism with goiter. Hyper-thyroidism was first described in 1825 by Parry—(28 years after Larrey made his observations) and he noted that he thought water had some influence from the mountains of melting snow.

For Larrey's work in Italy, Bonaparte congratulated him on the numerous services he had rendered to the wounded and sick.

In 1798 Larrey organized and equipped the surgical material needed for the expedition. In Egypt, Larrey noted the gravity of the wounds inflicted with unheard of violence by the Damask of the Mamelukes; for example, the stump of a shoulder cut away; others had members almost detached or portions of the skull completely carried away.

He establishes a hospital for "pest"—and insists on proper hygiene. He notes the prevalence of ophthalmia in the army caused by heat of the day, brilliance of the sun, light reflected by sandy soil, and dust raised by the wind. He also notes among the wounded, tetanus, and observes the predisposing causes.

When food was scarce and no horses were available, Larrey suggested they eat camels. They found it more tasty than horse-meat.

At the battle of Acre, one of Bonaparte's aides received a bullet in the neck which pene-

trated both external carotids. Under fire, Larrey ligated both with recovery. He did 72 amputations; 2 disarticulations at the hip; 6 disarticulations of the shoulder. These operations were still new and much discussed.

When Bonaparte was leaving Egypt to return to France, he wished to take Larrey with him. Larrey said: "I can be ready in two hours if necessary General, but if my presence is not indispensable to you, it would perhaps be more important if I remained with my numerous wounded". Bonaparte answered, "You are right, my dear Larrey, you will remain".

At the battle of Cairo, a Mameluke of Bey Mourad, had his left arm carried away by a cannon. Larrey disarticulated the shoulder. On the 25th day, the Mameluke was returned to Bey Mourad. The Bey gave proof of his gratitude by sending Larrey 12 white Circassian slaves. Raising their veils, he showed Larrey their faces which were of rare beauty. Larrey took care of the situation by placing them with his friends. All might have been well had not Madame Larrey gotten word of the story.

In Cairo, Larrey organized an obstetrical clinic and gave courses in midwifery to the natives.

In 1801, he returned to France and was made Surgeon-in-Chief to the Consular guard. This was the first public testimony of the popularity that he had acquired.

Larrey was to be Bonaparte's personal physician but politics again prevented this. His honesty, freedom of speech and the reforms he might have made, were too much for the politicians. They barred his way from this privileged situation.

During the short era of peace, Larrey put medicine and surgery on a higher plane, and put an end to the chaos which then characterized the art of healing. However the Surgeon-in Chief of the Consular guard, (who had contributed to the new legislation on the practice of medicine) found that he could not himself conform to the law. When Larrey departed with the armies in 1792 he was not a "doctor" of the old University of Paris. He possessed only certificates of study and examinations, from his masters of the College of Surgery and from hospitals. It became necessary for Larrey to write a thesis on amputations before he could receive the degree of "doctor". This he did. He sent the thesis to Napoleon, with some choice remarks that were characteristic of the man. Shortly after this, Bonaparte offered proof of his satisfaction by giving him 6000 livres, and named him Inspector General of the Health Service, the highest function to which a military surgeon could aspire. At the institution of the Legion of Honor, Bonaparte decorated him with his own hand and later bestowed on Larrey the Officer's Cross. He was then only 35.

Larrey who made demands constantly for others never asked anything for himself; a trait that was characteristic of him.

In August 1805 we find Larrey with the guard, preparing for the invasion of England. Trafalgar put an end to that plan. At Austerlitz the Emperor ordered the body of one of his generals, Volhmbent, to be embalmed, and sent to Paris. He instructed Larrey to do it. It was said that the doctors on the battlefield having none of the preparations necessary for the embalming, simply placed the General's body in a barrel of rum, and sent it to Paris, where it remained until 1814. This episode was denied and disproved later by Larrey.

Usually after a great battle Bonaparte would honor his generals, by giving them large sums of money. He gave nothing to his surgeons. It was only natural that Larrey asked the Emperor to help shelter his family. The Emperor granted a thatched roof cottage. The cottage came later, after promulgation of the Empire. It was ten years before Larrey could, from his savings, buy a small villa.

While in Germany, Larrey met Von Graefe, the ophthalmologist, who later became Surgeon-in-Chief of the Prussian army.

In 1807, we find Larrey in Warsaw. He distinguished himself by his work with the wounded, working 24 hours a day in cold weather, suffering fatigue and privations. Cold and sadness finally accomplished their work and Larrey became ill. After the battle of Eylan, Larrey was named "Commander of the Legion of Honor".

At the School of Medicine, the chair of surgical pathology was vacant. Larrey was named to fill it. When one of Bonaparte's aides asked Larrey to make his choice between that and "Consultant Surgeon to the Emperor", Larrey chose the latter, but Richeraud was named in his place. What politics caused the Emperor to change his mind and sadden one of the most devoted and oldest of his servants? It is probable that the bureaucrats of the army, who had definitely bent under his authority, made all efforts to remove one of the most authoritative and independent chiefs from the privileged post. What is sure is, that it was Dubois (whose life Larrey had saved) was at the bottom of this change. Larrey soon departs for Paris and then to Spain.

During the campaign, "adynamic fever" (typhoid fever) had broken out in the hospitals due to polluted water. It was mostly British soldiers who were stricken. Larrey was later thanked by the British Government for his heroic work on behalf of the typhoid-stricken British troops.

In Germany with the Emperor, Larrey was busy in the hospitals following the battle of Wagnam and Essberg. There were 300 amputations with many disarticulations of the shoulder. Larrey set forth the indications and perfected the operative procedure. Out of 14 disarticulations, he lost but one.

One morning coming out of the hospital, an aide gave Larrey a sealed envelope. The letter proved to be his nomination to the title of Baron, with a yearly income of 5000 francs. It was little, if we consider the large amounts that the Emperor distributed to his line officers.

Larrey returned to Paris on November 18, 1809. The years 1809 to 1811 were spent with his family, and permitted Madame Larrey who had pursued her painting, in order to help support her family, to put aside her brushes for the first time.

In February 1812, Larrey left with the army again for Prussia. He was named Surgeon-in-Chief of the Army. The Russian campaign revealed the faults of inadequate supplies for the combat troops as well as for the medical service. This is the beginning of the fall of the Empire as well as the first evidence of change of character of the Emperor. On the retreat, the army suffered immensely from lack of clothing and food, sub-zero weather and heat. All towns on the road back were in ruins. The wounded left behind in hospitals, as well as those soldiers falling out on the retreat, were just slaughtered by the Russians.

Of the 100,000 men who left Moscow, only 36,000 got back. The remainder had died on the road. Larrey saved himself from this fate by marching continually on foot, and by depriving himself of the pleasure of getting warm. There had been 826 surgeons at the beginning of the campaign; only 275 remained. Larrey himself was stricken with typhus in February 1813 at the age of 47.

At Dresden, Larrey saw in the hospitals, Russians and Prussians with their doctors; he noticed that all the amputees were suffering from painful stumps. Larrey told the German surgeons how to alleviate this suffering and gave them a magnificent lesson in war surgery. From this moment, the Germans adopted Larrey's procedure.

At Dresden there were 3000 soldiers with wounds of the hands and fingers. The generals complained that the wounds were self-inflicted; hearing this, the Emperor gave orders that these wounded were to be made prisoners, and that one out of every corps was to be shot for attempting to evade service. Larrey interceded and proved to the Emperor that the wounds had not been self-inflicted. The Emperor answered: "Larrey, a sovereign is indeed fortunate to have a man such as you". He embraced Larrey and pressed his hand. For the report, Larrey received a portrait of Napoleon enriched with diamonds, 6000 francs in gold, and a pension of 3000 livres. From this moment, the attachment which Napoleon showed for his surgeon took on a particular character, and changed into a profound esteem; and when the Emperor was drawing up his will, he inscribed in it the name of Larrey with this glorious eulogy—"He is the most virtuous man I have ever known." The Emperor gave Larrey further proof of his satis-

faction by naming him his Consulting Surgeon.

At Mentz, Larrey asked for his first leave. This was refused. Larrey renewed his demand for leave and stated if he didn't receive it he would take it anyway. He left for Paris January 6, 1814, and remained only 19 days when he was recalled. In the spring of 1814, the Emperor was sent to Elba. Larrey asked, as a favor, to be permitted to accompany him.

The Emperor on return from Elba, asked for Larrey without delay; said he, "I have known of your fidelity for a long time, I insist upon telling you so now, and of the devotion that you have shown to your wounded."

At Waterloo (June 1815), Larrey and his corps were collecting men and operating under shot and shell at the risk of being trampled under the feet of the horses. Wellington, on the heights of Saint Jean was following the events. He noticed this surgeon under the very fire of the English. "Who is this audacious man," he asked? It is Larrey they answered him. "Go, give directions not to fire on that side; let us give this humane man time to pick up his wounded." With this he raised his hat and said, "I bow to the honor and loyalty which are passing"—designating the surgeon of the guard.

Larrey wounded by two sabre thrusts was taken prisoner by the Prussians. All his clothes were taken from him as well as his money and the damask that Bonaparte had given him. His hands were tied. Without shoes, and bleeding from wounds, he was taken to the general who mistook him for the Emperor and ordered him shot. A young Prussian surgeon, who had been a student of Larrey's, recognized him and had him taken to Blucher, whose son Larrey had saved. The latter ordered that the prisoner be given clothing and sent to Louvain. In August 1815, Larrey returned to Paris, But under the order of July 24, 1815, Larrey was among the outcasts. They took away his function of Inspector General; cancelled the fees that were attached to that position, and revoked his pension and the salary of the Legion of Honor. He was carefully watched, and tried to do some private practice. Madame Larrey again was forced to take up her paint brushes.

On April 10, 1818 the Chambers reinstated his pension. At this time, Larrey was 52. During this period Larrey wrote his memoirs, and his surgical essays. He was the first to recognize and describe laryngocele. This, he noticed in Egypt. He observed air-filled tumors of the neck in the blind men who called the faithful to prayer. His other observations included: the use of Moxa (moks-ah) a tuft of soft combustible substance to be burned on the skin; the properties of the iris; the operation of the sympathetic system; wounds of the intestines; fractures of the neck of the femur; Potts disease; wounds of the bladder; amputations; notes on syphilis. It would seem that I have mentioned all branches of medicine and surgery that Larrey concerned himself with. They represent activities which all of us practice today.

Larrey had offers from many countries including the United States. At the age of 60, with his son, he visited England and received the thanks of the British government, for looking after, and caring for their wounded. He was requested by the Belgian Government to organize their health service.

In 1838, at the age of 72, he was placed on the retired list as a Surgeon of the Invalides. This was almost too much. On December 14, 1840, he was present at the return of the body of Napoleon from St. Helena, and we find him leaning on the arm of his son in an old uniform escorting his idol as far as the Invalides.

At the age of 76, he was ordered by the Government to inspect the hospital in Algeria. While returning, he was stricken with pneumonia, but was unwilling to rest, for he was hurrying to the bedside of his wife, who also was ill; Madame Larrey preceded him in death by 24 hours.

Such is, with large strokes, the silhouette of the great and noble figure who had transmitted intact, in his greatness and his noble simplicity, through three quarters of a century, and who has today become legendary—Baron Dominique Jean Larrey.

224 Delavan Avenue

SUCCESSFUL TREATMENT OF NEPHROSIS WITH CORTISONE

WILLIAM B. NEVIUS, M.D., East Orange, N. J.
ALBERT S. HARDEN, JR., M.D., Maplewood, N. J.

Lipoid nephrosis is one of the chief unsolved problems of pediatrics. The characteristic findings of generalized edema, heavy albuminuria, hypoproteinemia, hypercholesterolemia and normal blood pressure with very little or no evidence of hematuria, are familiar to all physicians. The many different types of treatment attest to the unreliability of any single one of them. High protein diets, low protein diets, thyroid extract, infusions of plasma, concentrated albumin and acacia, various diuretics, fever, and protein shock therapy have all been tried and found wanting.

In view of the apparently successful treatment with cortisone[1] of two very severe and stubborn cases of nephrosis, the following two case reports are presented in the hope that other clinicians will be encouraged to try this new drug in the treatment of similar cases.

CASE ONE

A 2½ year old boy was first admitted to Orange Memorial Hospital, Orange, N. J., on July 5, 1947, with a history of intermittent attacks of edema since October 1946. The attacks usually cleared up after a few days. The last attack began June 30, 1947, following a "cold". Physical examination showed a moderately well-developed and well-nourished, pale male child. There was a slight puffiness of the eyes and of the feet. Other than a moderate redness of the throat, examination was negative. Urine showed 4 plus albumin, no red blood cells, a few white blood cells, and a few hyaline and granular casts. Blood cholesterol was 200 milligrams per 100 cubic centimeters. Total serum proteins 6.52 Grams, albumin 3.88 Grams, and globulin 2.64 Grams. His weight, which on July 5 was 39 pounds, steadily increased until August 10 when he weighed 50 pounds. At this time the hemoglobin was 55 per cent (9.5 Grams), red blood cells 2,040,000, white blood cells 9500, polymorphonuclears 42 per cent, lymphocytes 52 per cent, and eosinophiles 6 per cent. On August 11, by abdominal paracentesis, 2150 cubic centimeters of ascitic fluid were obtained. He was then given 60 cubic centimeters of concentrated serum albumin (human), salt poor, intravenously, which was continued daily until September 8, with the exception of two days. Transfusions of 250 cubic centimeters of whole blood were given August 12, 15 and 18. On this, he steadily improved, his weight reaching a low point of 27 pounds, 14 ounces on discharge from the hospital on September 12, 1947. Clinically he was much improved, although this was not reflected in his laboratory reports. Urine still showed 3 to 4 plus albumin and serum proteins were 7.32 Grams, with albumin 2.72 Grams and globulin 4.6 Grams. Clinical improvement continued and by December 1, the urine became negative for albumin. He then remained well in spite of occasional attacks of upper respiratory infections and one attack of roseola infantum until the fall of 1949.

Second Admission: The boy was now five years old. On November 22, 1949, he developed a mild upper respiratory infection which was soon followed by the reappearance of edema of the face and ankles. He was readmitted to Orange Memorial Hospital on December 4, primarily to receive injections of concentrated serum albumin (human), salt poor. He was found to be a well-developed and well-nourished boy with marked edema of the abdomen and mild edema of the ankles and lower legs and very slight puffiness of the eyes. His throat showed a moderate degree of inflammation. His blood pressure was 90/65. Laboratory findings at the beginning of this admission were: hemoglobin 115 per cent, red blood cells 4,860,000, white blood cells 8100, polymorphonuclears 60 per cent, lymphocytes 32 per cent, eosinophiles 8 per cent. Blood chemistry findings were cholesterol 830 milligrams, nonprotein nitrogen 56 milligrams, blood urea nitrogen 24 milligrams, serum proteins 5.5 Grams, albumin 3.4 Grams, globulin 2.1 Grams, creatinine 1.6 milligrams, and sugar 91 milligrams. The urine showed albumin 4 plus, white blood cells 6 to 8 per high power field, red blood cells 2 to 5 per field, 0 to 1 pus casts, 1 to 2 granular and hyaline casts per field; sedimentation rate was 28 millimeters in 60 minutes (Cutler method) although much the greater part of the fall occurred in the first 15 minutes. He was started on 60 c.c. of the concentrated serum albumin (human), salt poor intravenously, plus 90 cubic centimeters of 10 per cent glucose daily, and this dose was continued until March 2, 1950, with very few omissions. Sixty-six injections were given. Eight transfusions were administered between January 6 and February 21 for moderate secondary anemia. The weight, which was 50 pounds on admission (his normal was estimated to be between 43 and 45 pounds) gradually increased to 54 pounds in the first two weeks and then decreased to 44 pounds on February 11, gradually increasing to 46 pounds on discharge March 12, 1950. The concentrated serum albumin, while keeping the edema under fair control, did not act as dramatically as during the first admission. There

1. Manufactured by Merck & Co., Rahway, N. J., under the name of Saline Suspension of Cortone Acetate.

was very little improvement in the laboratory findings. The cholesterol varied from 512 to 879 and was 833 on discharge; nonprotein nitrogen fluctuated between 48 and 78 and was 66 on discharge. Total proteins were 6.4 Grams, albumin 2.1 and globulin 4.3 Grams. This contrasts with a serum protein level of 5.5 and an albumin-globulin ratio of 3.4 and 2.1 Grams at the begnning of this admission. The albumin was still running 4 plus in the urine, white blood cells 1 to 3 per high power field, red blood cells 4 to 6 per field and 1 to 2 granular casts per field. Because he had been in the hospital for 13 weeks and had not gained weight for one week without the injections of concentrated albumin, he was allowed to return home. In a few days, however, the edema began to return and when it was found that a supply of cortisone could be obtained, it was decided to readmit him to the hospital for a trial on the new drug.

At the time of his *third admission* on March 24, 1950, the laboratory findings were essentially the same as on his previous discharge. He had gained 6 pounds in 12 days at home. He was immediately placed on cortisone on the dosage indicated in Figure 1. Fifty milligrams were given intramuscularly every 12 hours for 2 doses and then 25 milligrams (one cubic centimeter) daily for the next

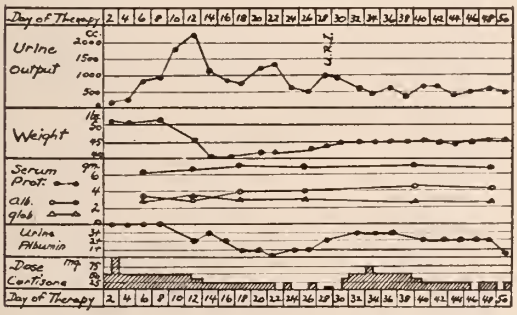


Figure 1. Clinical Chart of Case 1.

9 days. A noticeable improvement was apparent in the urinary output by the sixth day of therapy. The output, which had varied from 240 to 595 cubic centimeters per 24 hours, was 875 on the sixth day, increasing to 2255 and 2170 on the eleventh and twelfth days after institution of treatment. His weight, which was 52 pounds from the day before admission to the seventh day after admission, fell to 41 pounds five days later. There was a corresponding improvement in the laboratory findings. The cholesterol had dropped to 430 from 833. Serum proteins were 6.95 Grams with albumin 4.0 and globulin 2.95 Grams. Urinary albumin had dropped to 2 plus. Clinically, the boy was much improved and demanded large quantities of food, consuming as many as five eggs at breakfast for several days in succession. On April 3, the dose of cortisone was reduced to 12.5 milligrams twice a day and continued at that level for the next 12 days. The patient maintained his improvement. On April 21 he developed a mild upper respiratory infection during which his urinary output decreased somewhat. He appeared more puffy in the face, and urinary albumin rose to 3 plus. The dose of cortisone was then increased to 25 milligrams twice a day for the next 7 days, except on April 26 when he received 75 milligrams (3 cubic centimeters). There was prompt improvement: the urinary output increased and the urinary albumin dropped to a trace in the course of the next two weeks. After improvement was maintained on a dose of 25 milligrams every other day for a week, it was considered safe to permit him to return to his home. At the time of discharge the laboratory findings were: hemoglobin 82 per cent, red blood cells 3,990,000, white blood cells 8900, polymorphonuclears 46 per cent, lymphocytes 48 per cent, eosinophiles 2 per cent, blood cholesterol 231, nonprotein nitrogen 47.2, serum protein 6.5 Grams, albumin 4.1 Grams, globulin 2.4 Grams. Urine showed a trace of albumin, 3 to 4 white blood cells, and 2 to 5 red blood cells and no casts. During the entire period of his stay in the hospital, blood pressure varied from 90 to 110 systolic and from 60 to 80 diastolic.

No toxic effects from the administration of cortisone were noted. Because of the lowering of the serum potassium rather frequently observed with cortisone, 15 Grams of an equal mixture of potassium acetate, potassium citrate and potassium chloride were administered every four hours, and nothing untoward was observed of this nature.

The child has remained on gradually diminishing doses of cortisone and his improvement has been maintained. He is now receiving 25 milligrams (1 cubic centimeter) of cortisone every 7 days; his urine shows a trace of albumin, and his weight is 46 pounds.

CASE TWO

The second case differed somewhat from the first. The child was only 2½ years old. He had not as high a serum protein level. There was a greater amount of fluid in proportion to the body weight. There were some red blood cells in the urine at times suggesting a nephritic element. The child responded more slowly to the cortisone and the improvement was more gradual, but just as lasting, as the first patient's. His age precluded accurate measurement of output. At intervals, this could be measured, however, as first he voided 200 cubic centimeters in 24 hours. At the period of the first diuresis he voided large quantities 12 times daily and at the end of the period was voiding 400 c.c. in 24 hours.

This child was born August 11, 1947. He was first admitted to Babies Hospital, Coit Memorial of Newark, N. J., on March 30, 1949, with swelling of the eyes and abdomen. He had had a hospital admission elsewhere for "croup" at the age of 6 months. He was subject to repeated colds, some accompanied by wheezing. He had had measles at 11 months and German measles at 18 months (3 weeks before this admission). He developed hives after touching dogs or eating pineapple. The present illness began three weeks before admission when the child had an attack of tonsillitis with a rash diagnosed as German measles. One week before admission his parents noticed he was taking

on weight. He developed a puffiness around the eyes and legs. Three days before admission the abdomen became enlarged and he lost his appetite. The urine in the diaper had never changed color.

On admission, he was very irritable, face was puffy, abdomen markedly distended, there was a moderate nasal discharge. Blood pressure was 114/70. The urine showed 4 plus albumin and specific gravity 1.025, white blood cells 20 to 25; many granular casts. Blood count showed 102 per cent hemoglobin, red blood cells 5,200,000, white blood cells 21,700, stabs 3 per cent, segmented 50 per cent, lymphocytes 41 per cent, monocytes 4 per cent, eosinophiles 2 per cent. Blood chemistry: cholesterol 222, total serum protein 5.0 Grams, albumin 2.5, globulin 2.5 Grams, sedimentation was 70 millimeters in 60 minutes (Westergren method). Nonprotein nitrogen was 32. The urine cleared to 1 plus albumin on a low sodium, high protein diet and 100,000 units of penicillin intramuscularly twice a day. He dropped in weight from 25 pounds, 10 ounces to 21 pounds, 4 ounces in 9 days. He was discharged on April 16, 1949.

The next admission was September 6, 1949. During the interval he had frequent colds. His weight fluctuated between 36 and 40 pounds. His infections could not be controlled to the point where he would lose weight again. At this time he had a generalized anasarca to such a degree that he could not lie down to sleep. At abdominal paracentesis, we removed 2100 cubic centimeters. Blood count showed hemoglobin 70 per cent, red blood cells 3,300,000, white blood cells 9500; differential: stabs 5 per cent, segmented 46 per cent, lymphocytes 40 per cent, monocytes 4 per cent, eosinophiles 4 per cent, basophiles 1 per cent. Urine showed specific gravity 1.020 albumin 4 plus, white blood cells 6 to 8, red blood cells 15 to 20, with 3 to 5 granular casts and 1 hyaline cast. Blood chemistry: blood urea nitrogen, 19 milligrams, total serum proteins 5 Grams, nonprotein nitrogen 36 milligrams, albumin 2.4, globulin 2.6 Grams, sedimentation 115 in 60 minutes. He was reduced in weight, mainly by two more paracenteses. The weight then fell from 41 pounds, 4 ounces to 30 pounds on discharge. He was given large doses of penicillin and digalen, thyroxin, potassium citrate, salt free diet, lonalac and distilled water, and concentrated plasma intravenously. He was discharged on October 18, 1949.

On December 9, 1949, he was admitted once more because of excessive accumulation of fluid, interfering with respiration. After paracentesis of 2500 cubic centimeters, he lost 8 pounds and with continued leakage lost a little more weight. He was then started on salt poor, human albumin intravenously, 20 cubic centimeters every 12 hours for 10 days. He dropped from 28 pounds, 14 ounces to 25 pounds but then began to gain even while continuing to receive the salt poor albumin.

On February 8, 1950, he was admitted again because of fluid accumulations. He was given molar sodium lactate solution, 400 cubic centimeters daily orally. After two days he refused to take this solution and would vomit if forced. Next an alkaline mixture of potassium citrate, potassium carbonate, sodium citrate, sodium carbonate in syrup of orange and cherry was given. This was gradually increased to bring the plasma carbon dioxide to 58 volumes per cent with no change in the general condition of the child. Next Mulsoy, boiled rice and fruit juices were given exclusively. The child steadily gained in weight.

On April 13, 1950, cortisone was obtained. The weight at this time was 36 pounds, 9 ounces. The urine showed 4 plus albumin, specific gravity 1.010, white blood cells 4 to 6, red blood cells 2 to 5, 1 granular cast; hemoglobin 68 per cent, red blood cells 3,500,000, white blood cells 13,800, stabs 6 per cent segmented 35 per cent, lymphocytes 49 per cent, monocytes 6 per cent, eosinophiles 4 per cent. Blood chemistry: nonprotein nitrogen, creatinine 1.5, sugar 95; total serum protein 3.8, albumin 1.7, globulin 2.1, sedimentation 128 millimeters in 60 minutes (Westergren method). He was given 40 milligrams of cortisone every 8 hours for 3 doses, then every 12 hours for 2 doses, then 25 milligrams every 12 hours. (See Figure 2.) On this dose, weight steadily rose for 17 days and then began to fall from 41 pounds, 15 ounces, at first losing about a pound a day and then about half a pound a day until he reached 30 pounds in 21 days, and then leveling off.

At this point he had an episode of acute bronchitis. The urine, which had decreased from 4 plus to 2 plus albumin, then began to show 3 plus again. The cortisone was increased to 40 milligrams every 12 hours with no improvement until aureomycin

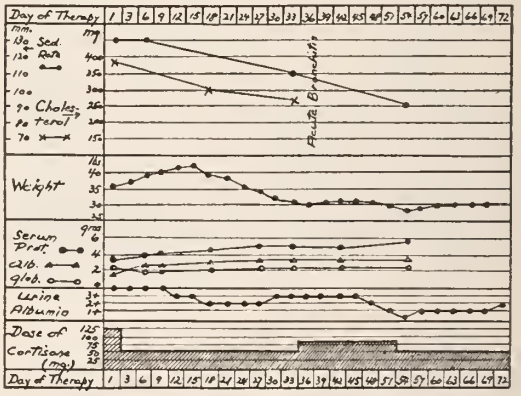


Figure 2. Clinical Chart of Case 2.

was given to combat the infection. After a few more days the weight began to drop again, and the patient improved in disposition and appetite and put out more urine. His weight dropped four more pounds until he appeared dehydrated, with sunken eys and dry skin but perfectly moist mucous membranes. At this point the total serum proteins rose to 5.2 Grams, albumin 2.9 Grams, globulin 2.3 Grams. Sedimentation rate was 85 millimeters in 60 minutes. The urine began to show just a trace of albumin, rare granular cast and 1 to 3 white blood cells, specific gravity 1.020. Blood count showed hemoglobin 86 per cent (13.3 Grams), red blood cells 4,200,000, white blood cells 18,800.

On June 19 the patient developed a typical attack of measles. No complications developed although he did gain 24 ounces in weight and showed

1 to 3 plus albumin. The urine returned in 10 days to a trace of albumin and his weight returned to 29 pounds with no change in the cortisone dosage. He was very cheerful through this illness, not as uncooperative as when he had his upper respiratory infection. The dose was decreased to 25 milligrams once daily for 10 days, then to 25 milligrams on alternate days without change in the laboratory findings, although his appetite failed somewhat. He was given salt on his food and regular milk. This resulted in return of appetite. At discharge, his blood cholesterol was 170 milligrams, sugar 105 milligrams, total serum protein 7.2 Grams, albumin 4.7 Grams, globulin 2.5 Grams. Sedimentation rate was 58 millimeters in 60 minutes. Hemoglobin was 12.4 Grams or 80 per cent, red blood cells 3,900,000, white blood cells 8500; differential: stabs 4 per cent, segmented 45 per cent, lymphocytes 42 per cent, monocytes 6 per cent, eosinophiles 3 per cent. He is stabilized around 30 pounds and is now at home.

DISCUSSION

The first child responded to cortisone therapy with rapid and profuse diuresis starting in 6 days. The second gained weight for 17 days and then began to diurese. The first reached his lowest weight in 12 days and the second in 35 days after the onset of treatment. This variation is explainable on the basis of the difference in the level of serum protein and amounts of fluid present at the onset of therapy. Both children showed a prompt and steady increase in the level of serum proteins, with a return to the normal albumin-globulin relationship.

The personality change in the second child was very marked. He was negative and unresponsive but, when cortisone was started, he became almost euphoric. He laughed and played happily and was quite an exhibitionist. When the upper respiratory infection began, he again became glum and irritable in spite of continued cortisone. When the infection cleared, his disposition improved. The measles did not affect him in the same way; he was very happy throughout this disease. When his cortisone was increased, he again was unhappy for a week but then picked up when presumably his own adrenals took over.

There was an opposite effect in the two cases on the hemoglobin and red blood count. In the first child a mild and stubborn secondary anemia developed which failed to respond to iron alone or to an iron and liver combination. The second child showed a steady increase in the hemoglobin and red cell values.

The first child recovered and seemed to have a normal fat distribution. The second child developed a "moon face" and accumulation of fat about the abdomen and hips. This occurred gradually as the fluid left his body and he ate his food ravenously. He never really looked like the cachectic child who had had a spontaneous remission. The increase in appetite was amazing to all who observed these children. The increase in muscular strength was also unbelievable after the extremities had had such an extended period of disuse.

At his extreme low point in weight, the second child's eyes appeared sunken, and the periorbital tissues were pigmented where they had once been so swollen. On inspection, however, the tongue and mucous membranes appeared perfectly hydrated. At this point fluids were given as desired and the dehydration of the subcutaneous tissues disappeared.

There was a similar striking effect on the sedimentation rate in the two cases. As the serum proteins resumed their normal levels and relationships, the sedimentation rates approached normal rapidly, although in neither case did they reach entirely normal values.

At the time of the beginning diuresis both children received a Gram of an equal mixture of potassium chloride, potassium citrate and potassium acetate, which was given 6 to 8 times daily to guard against lack of intracellular potassium. This resulted in the second child in correction of electrocardiographic changes due presumably to the lowered serum potassium. The T wave was at first of low voltage. After 10 days of cortisone therapy the T waves in Lead 2 and 3 became inverted. On potassium therapy these returned upright once more. No other toxic effects of lack of potassium were noted.

The pulse of the second child was quite rapid, it being 120 to 140 all the time. The blood pressure gradually rose to 120/80 and the pulse at that time declined to 100.

SUMMARY

1. Two cases of nephrosis in boys five and

two and a half years of age treated with cortisone are reported. Both cases had proved resistant to commonly used forms of treatment previously given.

2. Cortisone resulted in significant and gratifying improvement in both cases. It required seven days for the improvement to occur in the first case and seventeen days in the second.

3. The improvement observed included a marked diuresis, marked weight loss, an increase in serum proteins with a return of the normal albumin-globulin ratio, a sharp decrease in the urinary albumin, significant reductions in the sedimentation rate and blood cholesterol, and the general appearance of good health and well being. Toxic effects were very minor and not a cause of concern.

610 Park Avenue, East Orange, N. J.
551 Ridgewood Road, Maplewood, N. J.

THE NEUROTIC POTENTIAL AND THE NEUROTIC PROCESS

The neurotic process is as inevitable a part of human development as breathing. It arises out of a "neurotic potential" which, in turn is a universal human quality. These are not necessarily "bad" traits. A neurotic compulsion to do good is as frequent as the reverse. Fortunately so, or this world would be even in a worse fix. Some of the most useful activities in the world have been accomplished under the urgent pressure of neurotic drives.

There is nothing a person can think or do which may not be either normal or neurotic, depending on the psychologic forces behind it. The act itself is not necessarily either normal or neurotic. Cleanliness or dirtiness, selfishness or altruism, guilt or virtue, extravagance or penuriousness, conformity or rebellion—all can be "normally" rooted or "neurotically" produced.

The unconscious nature of the drive is what determines its "normal" or "neurotic" character. Conduct which is determined predominantly by conscious processes is flexible and realistic. It can be influenced by fear, threats or appeals to reason. It implies a capacity, therefore to learn from experience. On the other hand, when behavior is determined by a preponderance of unconscious processes, it tends to be rigid and "unreasonable". It is not altered by argument, reason, fear or promises. Neurotic behavior precludes "learning" in the ordinary ("conscious") sense of that word. And it is precisely when unconscious forces predominate (or when their goals are incompatible with conscious goals) that neurotic behavior results.

The "neurotic potential" exists as an inevitable consequence of our essentially human capacity to represent symbolically all psychologic experiences, even those of which we are unconscious; the neurotic "process" is a natural evolution out of this neurotic "potential" under the influence of unconscious guilt or fear. The symptomatic "neurotic state" (the clinical psychoneurosis) is an episode, transitory or persistent, in which automatic symbolic language is the medium through which our unconscious struggles seek expression.

—Extracted from a paper by Dr. L. S. Kubie, in the United States Armed Forces Medical Journal, 2:1 (January 1951). Extract prepared on behalf of our Committee on Adult Diseases, Dr. Carlyle Morris, Chairman.

MEDICAL JURISPRUDENCE SOCIETY ORGANIZED

Announcement is made of the organization of a New Jersey Society for Medical Jurisprudence. Aim of the new association is the investigation, study and advancement of forensic medicine and medical jurisprudence. It is hoped that through this vehicle, standards of medical testimony will be elevated and a better understanding of medical concepts will be made available to jurists. Physicians in good standing, along with attorneys and chemists acceptable to their own professional groups, are eligible. Further details may be obtained from the chairman of the new society's Committee on Organization, Mr. Nathan Rabinowitz, 5 Colt Street, Paterson 1, N. J.

TECHNICS OF OBSTETRICAL ANESTHESIA

Paul I. Bookstaver, M.D., Teaneck, N. J.

Perhaps no other form of human suffering has evoked more study and more discussion in the literature than the pains of childbirth. The relatively large number of agents tried and rejected and the continued search for better agents that will do justice to both mother and fetus makes the subject somewhat confusing. Consequently, a brief consideration of this subject seems indicated at this time.

While the anesthesiologist is well trained in his specialty, the ultimate decision as to choice of anesthetic agent in the specific case should lie with the accoucheur. It is the obstetrician who is responsible for the life of both mother and fetus; he knows best their conditions and what their organisms can tolerate. Open consultation between them can best serve the needs of the patients. One must remember that any anesthetic agent administered for maternal relief may have a direct or indirect effect on the fetus. Practically any drug that enters the maternal circulation will pass through the placenta into the fetal circulation. The fetus cannot tolerate certain drugs as well as the adult and a toxic effect may result. A certain amount of anoxemia due to the depression of maternal respiration by the anesthesia may also be present. A combination of these factors, especially in the premature infant, may lead to grave consequences.

ANATOMY AND PHYSIOLOGY

Some anatomic and physiologic facts are presented below to facilitate an understanding of the mechanisms of the various anesthetics. The pain of the first stage of labor is due to the contractions of the uterine muscle and the dilatation of the cervix. The distress of the second stage is due partly to the uterine contractions but mostly to the distension of the pelvic muscles and fascia and finally the perineum.

The uterus derives its extrinsic nerve supply from three sources:

1. Motor fibers from the upper sympathetic thoracic ganglia run down the aortic plexus through the celiac ganglion, then along the hypogastric vessels into the pelvis and follow the uterine arteries to the cervical ganglion of Frankenhauser. From this ganglion, fibres pass directly to the smooth muscle of the uterus.

2. Special visceral afferent sensory fibres pass through the ganglion of Frankenhauser, the hypogastric and aortic plexuses to the eleventh and twelfth dorsal root ganglions and synapse there.

3. The sensory and motor fibres to the lower uterine segment, the cervix and lower birth canal are found in the sympathetic and parasympathetic plexuses communicating with the second, third, and fourth sacral nerves.

The sensory and motor supply to the perineal region is through the pudental nerve and the pudental branch of the posterior cutaneous nerve of the thigh, these originating from the sacral segments of the cord.

Clinically, we observe that blocking the sacral nerve roots abolishes the pain of distension of the birth canal, paralyzes the perineal muscles and abolishes tone in the smooth muscle of the cervix. If we elevate the block to include the eleventh thoracic segment, we abolish the pain of uterine contractions without interfering with the intensity of these contractions.

METHODS OF ANESTHESIA

The most modern influence in this field has been exerted by Grantly Dick Read and his followers in the form of "natural childbirth" or "childbirth without fear". Essentially, by treating childbirth as a normal physiologic process with education of the parturient to this, labor is stated to be relatively painless and sometimes delivery can be accomplished without anesthesia. This method is helpful but not successful in the relief of pain in *all* women. Some women (relatively few) adapt themselves to this regime and need no analgesic or anesthetic during labor and delivery. The vast majority of women, however, do need additional help.

Hypnosis, an art practiced by few, is, in the receptive woman, an excellent alleviant of pain during labor and delivery. However, hypnosis entails much practice for the doctor and patient. Not all women are cooperative or re-

ceptive enough for this. Both hypnosis and "natural childbirth" are excellent, if successful, as no drugs are administered and thus we do not have to worry about danger to the fetus and the dangers of anesthetics in general.

The commonest obstetrical anesthetics are those in which the agents are given either by the respiratory, intravenous, or rectal routes to accomplish general anesthesia. By depression of the appropriate centers in the brain directly, pain is abolished. However, other effects upon the body's vital functions also occur due to the depressant effect of the anesthetic agent. These drugs pass into the fetal circulation and depress the fetal vital functions. Another hazard is the possibility of aspiration of vomitus. This is to be considered strongly with general anesthesias as practically all deaths in this group can be attributed to the aspiration of vomitus.

INHALATION ANESTHESIAS

Anesthetics administered by the respiratory route include nitrous oxide, ethylene, cyclopropane, chloroform and ether. The first three agents have a short induction stage and would be excellent for obstetrics. However, nitrous oxide in order to accomplish general anesthesia must be given in a concentration of over 80 per cent and this cuts the oxygen portion to anoxic levels. Thus it can be given for only a short time and only to a patient in good condition. Ethylene, an excellent agent, is very explosive and has to be used with special precautions. Cyclopropane, another good agent, has to be avoided in patients with cardiac disease. Pituitrin administered with cyclopropane has a synergistic effect and ventricular fibrillation may result. A few deaths have been reported recently and this observation should be a warning.

Chloroform is widely used in Europe, but not much in this country. A small amount of the drug is used, the induction is fast and relatively free from vomiting. The disadvantages are a small margin of safety, the rare possibility of chloroform poisoning and the pronounced tendency of the uterus to relax and cause postpartum bleeding if too much drug is given. In capable hands, chloroform is a good anesthetic. It should not be used in toxemia nor for prolonged anesthesias.

Ether alone is a good drug with a great margin of safety. The disadvantages are a depression of the fetal centers when the administration is prolonged, a greater tendency towards vomiting and some tendency for the uterus to relax. The most common method of anesthesia in this country is a combination of nitrous oxide, oxygen and ether. Many use a mixture of equal parts of oxygen and nitrous oxide and supplement this with ether as needed. This mixture is safe, assures adequate oxygenation to the fetus and can abolish pain completely.

In summation: general anesthesias administered by the respiratory route are good for either vaginal or abdominal delivery if careful choice of the anesthetic agent is made. Most anesthetic deaths in this group are due to the aspiration of vomitus. With administration of general anesthetics, one must always have the facilities on hand to aspirate material from the bronchial tree.

INTRAVENOUS ANESTHESIAS

Lately, drugs administered by the intravenous route have become popular. Sodium Pentothal* has been used in a large number of deliveries. With this, anesthetic levels in the fetal circulation are small until 5 to 7 minutes after the start of administration. Consequently delivery has to be accomplished during this time with preparations made in advance if fetal depression is to be avoided. The disadvantages of thiopental are its severe depression of respiration, the danger of overdose, the slight degree of muscular relaxation obtained, and the danger of laryngospasm.

Alcohol and procaine in dilute solutions have been given intravenously during labor and delivery for relief of pain. However the number of observations has been too small and inconclusive as to effectiveness and safety to bear comment.

RECTAL ANESTHESIA

Rectal analgesia and anesthesia are used in

* This is the registered trade name for a branch of thiopental sodium prepared by Abbott Laboratories.

some hospitals. The Gwathmey mixture (ether and oil) is instilled rectally when labor is well advanced and, in many patients, delivery can be accomplished without supplemental anesthesia. Paraldehyde may also be given by rectum in a similar manner for maternal distress. Both these agents supply satisfactory analgesia but the actual delivery, in the vast majority of women, needs a supplemental anesthesia. The fetus is depressed to a greater degree than with other methods because of the prolonged action of the drugs.

Hence, general anesthesias are useful in obstetrics when the patient is desirous of being unconscious during delivery. The disadvantages of general anesthesias are a certain amount of fetal depression, a danger of overdosage with some drugs, and the great danger of aspiration of vomitus. The latter danger makes imperative the availability of a laryngoscope and suction apparatus whenever a general anesthesia is given.

REGIONAL ANESTHESIAS

The final group of anesthetics to be discussed are those used to produce regional anesthesia by nerve block. Here we make use of the anatomic nerve supply and anesthetize certain portions of this nerve supply. Drugs such as procaine, Metycaine,[1] Nupercaine,[2] and Pontocain[3] may be used—these differ as to duration of anesthesia and toxicity. The choice of the drug lies with one's own experience.

Local infiltrative anesthesia with dilute solutions is used to infiltrate the skin and subcutaneous tissues of the vulva, so that the terminal fibres of the nerve are anesthetized. This eliminates the pain of distension of the perineum and allows episiotomy and repair to be done painlessly. Local infiltrative anesthesia may be combined with a light general anesthesia for actual delivery, the repair being done under the local anesthesia. This entails only a short general anesthesia for the patient with little danger. Local infiltrative anesthesia may also be used to perform cesarean section.

Pudendal block, or blockage of the pudendal nerve as it crosses the ischial spine and the pudendal branch of the posterior cutaneous nerve of the thigh just medial to the ischial tuberosity, causes relaxation of the perineum and lower birth canal. Low forceps delivery can be accomplished without pain. Unfortunately, adequate anesthesia results only after 10 to 15 minutes and is not always successful even in experienced hands. This waiting period makes it difficult to determine when to give the anesthesia especially in the multipara.

Pudendal block and local anesthesia do not abolish the pain of uterine contractions so their use is restricted to cooperative patients. These patients can use voluntary "bearing down" efforts since their abdominal muscles are not paralyzed. This makes it particularly valuable in breech delivery. They are excellent for use in the patient having pulmonary or cardiac complications or even in the patient with a respiratory infection. Both require few instruments and can be used in the home with little danger. Neither have any effects on the fetus.

SPINAL ANESTHESIAS

Spinal anesthesia only recently has come into wide use. Until the last few years, spinal anesthesia was alleged to be dangerous in the parturient woman. Because of the large abdominal uterine mass (and the circulatory changes during pregnancy) the pregnant woman at term is extremely sensitive to spinal anesthesia. One must use smaller dosages of drugs than in the non-pregnant female and be careful to prevent marked drop in blood pressure. Vasopressor drugs are usually given prior to anesthesia. After the drug is introduced into the subarachnoid space, periodic measurements of the blood pressure must be made and appropriate steps taken. Unless the blood pressure falls to low levels, the fetus is not affected by spinal anesthesia. Uterine contractions are not disturbed by spinal anesthesia and there is noticeably a low blood loss at delivery. The newer technics using hyperbaric, or heavy, solutions make the level of anesthesia more controllable. To eliminate the pain of uterine

1. Trade name registered, Eli Lilly and Company.
2. Trade name registered, Ciba Pharmaceutical Products.
3. Trade name registered, Winthrop Stearns, Incorporated.

contractions and accomplish painless vaginal delivery, a level at the eleventh thoracic is all that is necessary. One must remember that with spinal anesthesia, the abdominal muscles are relaxed and "bearing down" efforts are eliminated. Consequently more instrument deliveries result.

If cesarean section is done under spinal anesthesia, the level must be raised to tenth thoracic or the level of the umbilicus. In abdominal delivery, fractional spinal may be used. Here a special needle is left in place during the operation and small doses of the drug are given at intervals. This greatly reduces the hazards of spinal anesthesia.

CAUDAL ANESTHESIA

Caudal anesthesia is really an epidural anesthesia obtained by administration of the drug in a potential epidural space. It was given great impetus by Hingson and Edwards. A malleable needle is introduced through the sacral hiatus into this space and the drug is injected in fractional doses. The anesthesia can be started when labor is established and the patient delivered with this anesthesia. As in spinal anesthesia, we must prevent a fall of blood pressure, using vasopressor drugs if necessary. Uterine contractions are unaffected and post-partum blood loss is slight. The level must be established as with spinal anesthesia. We must be careful not to enter the subarachnoid space because the drugs in high dosage would cause fatal massive spinal anesthesia. Caudal anesthesia interferes with labor and eliminates the "bearing down" reflex. Consequently, more instrument deliveries are necessary as with spinal anesthesia. Another disadvantage is that only about 65 per cent of patients have favorable sacral hiati for induction of caudal anesthesia even in expert hands.

Both spinal and caudal blocks for obstetrical anesthesia seem physiologically correct in that they block the pain pathways without interfering with uterine contractions and without causing fetal depression. When given in labor, they interfere with rotation and expulsion of the presenting part and necessitate a high proportion of operative deliveries. Psychologically, they are good for the parturient in that she is awake during delivery and hears the infant cry immediately after birth. Both spinal and caudal blocks should be administered by experts and require constant observation. A distinct disadvantage is the post-spinal headache occurring in about 15 per cent of patients and not yielding at all well to therapy.

COMMENT

Brief mention might be made of the use of continuous spinal and caudal anesthesias in toxemias of pregnancy and thrombophlebitis. In the toxemias, we take advantage of the lowering of the blood pressure by these anesthetic methods in treating these conditions. With thrombophlebitis, we use these anesthesias to relieve the accompanying vascular spasm and increase blood supply to the extremity affected.

More and more emphasis is being placed by both obstetrician and anesthesiologist on the importance of obstetrical anesthesia. Two lives and, indirectly, the welfare of an entire family are at stake. Upon consideration of the emotional and psychic pattern of the mother and with knowledge of the state of the fetus, one can decide on the most appropriate anesthesia for the benefit of both. This presupposes an adequate knowledge of present day drugs and technics which this brief discussion has tried to present in an objective manner.

241 Cedar Lane

NEW JOURNAL OF ANTIBIOTICS

Under the name, *Antibiotics and Chemotherapy*, a new journal has entered the field of medicine's periodical literature. The first issue is dated April 1951. Subscription rate is $10 a year. Subscriptions and further details may be obtained from the Washington Institute of Medicine, 1720 M Street, N.W., Washington 6, D. C.

NITROUS OXIDE AS AN INHALATION ANESTHETIC

MORTON N. FENSTER, M.D., Passaic, N. J.

In the quest for an ideal anesthetic, various methods of general and regional anesthesia have been tried. The ideal anesthetic would be easy to administer, would have no deleterious influence on the body, and would produce no adverse side effect on the nervous system. While present methods of anesthesia are satisfactory, the ideal has not been reached.

Nitrous oxide has been used since 1846. Its pharmacologic effects have been studied effectively. If an adequate amount of oxygen is provided, nitrous oxide in usual amounts produces no change in heart rate or cardiac output. Cardiac muscle, cardiac nerves and coronary circulation are not affected.* Blood pressure is not changed. The respiratory center is not affected. The vomiting center is not stimulated. This compares favorably with other anesthetic agents. Nitrous oxide mixed with oxygen is not explosive, though it could support combustion.

Nitrous oxide is a weak anesthetic. To produce deep anesthesia, it has heretofore served as an induction agent for the use of ether. While ether is a safe and useful anesthetic, it has certain objectionable features. It has an unpleasant odor, it is too lengthy in induction. It produces irritation in the bronchi and trachea, causing increased secretion of fluid, which may become excessive and cause respiratory obstruction. On recovery, the patient vomits frequently and the odor of the ether may be present for several days.

In our small sized general hospital, we have used Demerol† intravenously, as a simple and convenient method of potentiating the anesthetic properties of nitrous oxide. Except with small children, this method has been in use on all types of cases, where general anesthesia is used. It was particularly useful in the aged and poor risk patients. For this type of anesthesia, patients are given a slightly greater amount of premedication than we use in spinal or general anesthesia. The maximum premedication doses used were Nembutal[1] (grains 1½) one and a half hour before operation followed by morphine sulfate (grains ¼) or Demerol† 100 milligrams and atropine sulphate (grains 1/150) one hour before operation. Before the administration of nitrous oxide is begun, an intravenous dose of 25 to 50 milligrams of Demerol† is given. In exceptionally robust patients, it may be necessary to give 3 to 5 cubic centimeters of 2.5 per cent solution of Pentothal Sodium[2] to facilitate a more rapid induction. During the maintenance of the anesthesia, 25 milligram doses of Demerol† are given to maintain the required depth of anesthesia. Nitrous oxide is administered in a 50 per cent mixture with oxygen, the usual amount being 3 litres of each. If relaxation is necessary, curare may be used. We give 15 milligrams of d-tubocurarine. This is particularly useful in procedures lasting more than three-quarters of an hour. Most patients recover from the anesthesia rapidly with little or no nausea.

SUMMARY

A method of anesthesia has been described which could be used in any general hospital. As with all methods of anesthesia, caution has to be maintained in using the proper doses of drugs according to the age and virility of the patient. The other adjuvants necessary to maintain adequate circulation and respiratory exchange should not be neglected.

* Adviani, John: *Pharmacology of Anesthesia*, page 17, Charles C. Thomas, Springfield, Ill. (1947).

† Demerol is the Winthrop-Stearns, Inc., tradename for a brand of Meperidine Hydrochloride.

1. Nembutal is a brand of pentobarbital tradenamed by Abbott Laboratories.

2. Pentothal is the Abbott Laboratories tradename for thiopental.

202 Lexington Avenue

PLEURAL SCARRING IN VENTRICULAR TACHYCARDIA

Paul B. Jennings, M.D.,* Atlantic City, N. J.

Paroxysmal ventricular tachycardia is not a common lesion, occurring about once in 1800 electrocardiograms.[1] This arrhythmia in the absence of organic heart disease is certainly uncommon, occurring in from 10 per cent[2] to 17 per cent[3] of such cases. With the more advanced and refined methods of detecting early heart disease and the more generalized usage of the electrocardiograph, a more recent figure of 12 per cent[4] is probably more accurate.

In the presence of organic heart disease, the etiologic factors are usually fairly obvious. The two most common are digitalis toxicity and myocardial ischemia produced by coronary artery disease.[1, 2, 5, 6] As early as 1909, Sir Thomas Lewis produced paroxysmal ventricular tachycardia experimentally in dogs by ligating the coronary arteries.[7]

Anderson[8] states that in the absence of these two factors we must look for some congenital anomaly or neuromuscular aberration which would cause a fixed area in the myocardium to become vulnerable.

In the absence of organic heart disease, the etiology has remained a mystery. Patients may be seriously handicapped by ventricular tachycardia[9] and at least one death has been reported[13] in this condition in the absence of demonstrable heart disease. Exertion[8] and emotional stress[9] are commonly given as precipitating factors in both the presence and absence[5] of organic heart disease.

Because of this lack of speculation on a handicapping and puzzling entity, and in an effort to supply a possible cause for it, as well as stimulate further investigation, this case is presented.

A 50 year old white male was admitted to the Atlantic City (N.J.) Hospital because of severe chest pain. He was well until six hours before admission when he developed a severe upper abdominal pain which rose to the substernal region and radiated to the left shoulder. This had been preceded by dizziness and followed by palpitations. The pain was described as squeezing, very severe, and was accompanied by marked sweating. It was intermittent with an onset "like lightning", lasting about five minutes and then disappearing for eight to ten minutes only to recur. There was cough and dyspnea associated with the pain.

The patient had had many similar attacks dating back seventeen years. He averaged about four attacks a year, though the frequency has decreased over the past few years. Most of the attacks were less severe than this. Only two others required hospitalization. The usual attack consisted of a dizzy spell, palpitations and a feeling of faintness with occasionally some chest pain. These symptoms lasted only a few minutes as a rule, but on rare occasions lasted for hours. The attacks often followed as heavy meal. The patient said that baking soda had helped relieve them in the past. Eyeball pressure and pressure "on the neck" had been tried by physicians to no avail.

Thirty years ago, this patient had a draining empyema of the left chest which discharged pus chronically for fifteen years before the eighth attempt at thoracic surgery finally succeeded in healing it. About this time, these attacks started. He had a complete cardiovascular study at a University medical center and was told that his heart was absolutely normal. They saw him between spells and all their efforts to reproduce an attack were in vain.

On his current admission he had a blood pressure of 105/90, a pulse of 230 and respiratory rate of 20. He was in no acute distress but was complaining of pain, was slightly dyspneic and had a short cough.

A thoracotomy scar was noted at the left fourth, fifth, sixth and seventh rib levels. There were a few bilateral basal rales and scattered wheezes. The rales increased during the time of examination.

Examination of the heart showed a diffuse point of maximum impulse at the fifth intercostal space and just outside the mid-clavicular line. The apical rate was 230 per minute. The rhythm seemed to be absolutely regular but a slight alteration in the intensity of the first heart sound heard at apex was occasionally detected. There were no thrills or murmurs. There was no change of rate or rhythm upon carotid sinus or eyeball pressure.

His extremities appeared cold and clammy and were slightly cyanotic, evidently due to peripheral vascular collapse.

He was given oxygen and one-fourth grain of morphine and an electrocardiogram was done immediately. This showed typical ventricular tachycardia (Rate 220). The patient was given 0.2 Grams of quinidine at 8 p. m. and tracings were made at intervals. At 8:30 p. m. he suddenly stated that he felt better. An electrocardiogram was taken which showed normal QRS complexes and regular rhythm (except for an occasional ventricular premature contraction). The rate was 118 per minute.

The patient then suddenly (five minutes later)

* Dr. Jennings is chief resident in internal medicine at the Atlantic City (N.J.) Hospital.

complained of a headache and his pulse rate again became rapid. An electrocardiogram then showed a return to ventricular tachycardia at a rate of 230. At 9 p. m., he received another oral dose of 0.2 Grams of quinidine. At 9:30 p. m. the pulse rate dropped to 125 and the electrocardiogram returned to normal.

The rhythm remained normal all night and the next day. He was given another 0.2 Grams of quinidine at 10 p. m. for a total dosage of 0.6 Grams and then started on 200 milligrams every four hours the next morning. The patient remained asymptomatic for the rest of his hospital stay.

Chest x-ray showed a pleural thickening on the left. No definite adhesions were seen between the cardiovascular silhouette and the pleura. The left border of the heart was not well visualized.

Fluoroscopy showed the same pleural thickening on the left with elevation and limited motion of the diaphragm. The cardiac pulsation was normal and the roentgenologists were unable to visualize cardio-diaphragmatic or pleural adhesions with patient rotated through all positions.

An electrocardiogram two days after admission was essentially normal, including chest leads (V_1-V_7) and a precordial lead from the scarred area. The inverted T waves in the V leads are probably indicative of residual myocardial ischemia, which according to the literature[14, 15, 16, 17, 18, 19] may persist for several weeks.

The patient was discharged but was not placed on prophylactic quinidine, since the attacks were so infrequent. Instead he was given the drug to take in the event of an attack.

He returned three months later with a similar attack although much less severe. He was working when he felt faint and dizzy and began to gag. Thirty minutes later he developed substernal pain radiating to left shoulder. He took 400 milligrams of quinidine without relief. He then came to the hospital where an electrocardiogram confirmed the diagnosis of paroxysmal ventricular tachycardia. He was given 0.2 Grams of quinidine orally and ten minutes later the rhythm reverted to normal.

He was seen seventeen months after first admission during another typical attack. This time Pronestyl Hydrochloride† was used intravenously with a rapid return to regular sinus rhythm. He reports decreasing frequency of attacks and states that he has aborted several by the prompt use of oral quinidine.

The literature says very little about the cause of this abnormal rhythm when it occurs in the absence of organic heart disease. Emotional factors[5] and exertion[8] are commonly mentioned but usually quickly passed over without further attempt at explanation.[9]

The mechanism of this arrythmia is similar to that of paroxysmal auricular tachycardia. In both there is a temporary abnormal pacemaker in the cardiac muscle itself.[10] This similarity probably accounts for the analogous hypothesis that these factors are important in etiology. A similar analogy is probably also used to dismiss this entity as a benign lesion. It is, of course, benign when compared with paroxysmal ventricular tachycardia in association with organic heart disease. But considering its refractoriness to simple measures such as carotid sinus pressure, its ability to produce symptoms of coronary insufficiency as well as a shock-like picture and even death,[13] and the fact that it is but one step from ventricular fibrillation makes one question the use of the word "benign".

I do not question excitement and exertion as precipitating factors, or even as the sole factor in some cases. But one wonders if there might not be other undiagnosed "organic" factors present to account for this marked deviation from normal cardiac physiology.

This report is presented with the thought that it might shed some light on one such possible etiologic factor.

Is it not conceivable that the old severe chest pathology in this patient might have contributed to the development of paroxysmal ventricular tachycardia, especially since the attacks began soon after the "coincidental" healing of his empyema? It is unlikely that, with such long standing and massive involvement of his left pleural cavity, the adjacent pericardium could have escaped unscathed. The failure to visualize fluoroscopically adhesive bands between pericardium and pleura certainly does not rule them out since the lack of contrast caused by thick pleura and poorly expanded lung made it difficult to outline the left heart border. There certainly is no way to rule out a fibrotic area of pericardium.

It is therefore postulated that such an adhesion or fibrotic pericardial plaque may set up an irritative focus initiating a paroxysmal arrhythmia similar to the paroxysmal cerebral dysrhythmia seen in convulsive states secondary to a meningo-cerebral cicatrix following brain trauma. Such convulsive states result from traction on neurones as in a meningo-cerebral scar or as a result of irritation of adjacent

† This is the E. R. Squibb registered tradename for a brand of procaine amide hydrochloride.

brain tissue in cerebral scarring.[11] The relationship between the pericardium and the Purkinje system (which is composed of primitive muscle tissue[12] interspersed with nerve cells and fibers) seems analogous. The ectopic focus in the ventricular muscle is the same during each attack as evidenced by identical QRS complexes. This indicates that a definite area in the myocardium has become vulnerable or hyper-irritable.[8] Such a concept could be used as further evidence that this is a form of "myocardial epilepsy".

There is some evidence in the literature to support this hypothesis. Schwab[6] reports one case of paroxysmal ventricular tachycardia with organic heart disease which, at autopsy, showed a few adhesions between the left ventricle posteriorly and the parietal pericardium. Lundy and McLellan[5] report pulmonary disease as an exciting cause in 8 per cent of their cases. They state that pulmonary disease produced right heart strain which results in a right ventricular type of tachycardia. This was especially true in pneumonia. Here again it is conceivable that a complicating pericarditis could have been an important factor.

It also seems possible that a previous episode of acute benign (viral)pericarditis may play a role in the type of paroxysmal ventricular tachycardia which occurs in young individuals without organic heart disease. The disease varies in its severity and the diagnosis is undoubtedly often missed so it is possible that a residual pericardial scarring from a mild or subclinical case may be the background for the development of paroxysmal ventricular tachycardia in otherwise healthy individuals.

It is also worthwhile to note the dramatic response to quinidine in this patient and the ability of an intelligent patient to abort these attacks early with the drug when the arrhythmia does not occur frequently enough to warrant constant prophylactic use.

While the foregoing comments are based primarily on hypothesis, it is hoped that they will stimulate further investigation to help clarify the etiology of this entity and to add to our knowledge of the mechanism of this and other cardiac arrhythmias.

SUMMARY

1. A brief review of the literature on the cause of paroxysmal ventricular tachycardia is presented.

2. The need for further investigation of this group of patients without obvious organic heart disease is pointed out, since this entity is not entirely benign.

3. A case is presented of paroxysmal ventricular tachycardia occurring in a man without organic heart disease but with marked left pleural scarring.

4. Pericardial scarring is postulated as the etiologic factor in this case. Analogy is drawn between convulsive states due to cerebral scarring and paroxysmal ventricular tachycardia due to pericardial scarring. This concept of "myocardial epilepsy" is developed.

5. The possibility is raised of a previous mild or subclinical case of acute benign viral pericarditis being an etiologic factor through a similar mechanism.

6. The use of quinidine by the patient himself in order to abort attacks of paroxysmal ventricular tachycardia is suggested when they occur infrequently and do not warrant continuous prophylactic use of the drug.

1. Williams, C., and Ellis, L.: Archives of Internal Medicine, 71:137 (1943).
2. Herrmann, G. R., and Hejtmancik, M.: Annals of Internal Medicine, 28:989 (1948).
3. Strauss, M. B.: American Journal of the Medical Sciences, 179:337 (1930).
4. Levine, S. A., and Ambrust, C. A.: Circulation, 1:28 (1950).
5. Lundy, C. J., and McLellan, L. L.: Annals of Internal Medicine, 7:812 (1934).
6. Schwab, E. H.: American Heart Journal, 6:404 (1931).
7. Lewis, Thomas: Heart, 1:98 (January 1909).
8. Anderson, M. C.: American Journal of the Medical Sciences, 181:369 (1931).
9. Wilson, A. *et al.*: American Heart Journal, 8:155 (1932).
10. Levine, S. A.: *Clinical Heart Disease.* Saunders 1945. Ed. 3. (Philadelphia) Page 188.
11. Brock, Samuel: *Injuries of the Skull, Brain and Spinal Cord.* Williams and Wilkins (1943). Ed. 2. (Baltimore) Pages 223, 238 and 239.
12. Best, C. H., and Taylor, N. B.: *Physiologic Basis of Medical Practice.* Williams and Wilkins (1945). Ed. 4. (Baltimore) Page 162.
13. Elliot, A. R., and Fenn, G. K.: American Heart Journal, 9:806 (1934).
14. Campbell, M.: British Heart Journal, 4:49 (1942).
15. Freundlich, J.: American Heart Journal, 31:557 (1946).
16. Gravbiel, A., and White, P.: American Heart Journal, 10:345 (1934).
17. Zimmerman, S. L.: Journal of Laboratory and Clinical Medicine, 29:598 (1944).
18. Smith, L. B.: American Heart Journal, 32:257 (1946).
19. Solarez, S. D.: Annals of Internal Medicine, 27:447, (1947).

26 South Ohio Avenue

STATE ACTIVITIES

EPILEPSY PROGRAM LAUNCHED

New Jersey's first coordinated statewide project for the benefit of the state's 20,000 epileptics is being undertaken on the recommendation of The Medical Society of New Jersey. Spear-heading the program is the New Jersey chapter of the National Society for Crippled Children and Adults, Inc., under the leadership of Deputy Attorney General J. R. Tiffany of Montclair. The N. J. Society for the Welfare of Epileptics had pledged $5000 to help launch the project. One goal will be to provide facilities to fill unmet needs of our state's epileptics. Mr. Tiffany characterized the medical society's recommendations as the master plan which will serve as the project's basic blue print. First step will be the nomination of a coordinator for the program.

The Medical Society has found that many epileptic persons are kept out of school or have been unable to get employment because of the lack of public understanding of the disease and because there is no organized approach to the social problems incident to it.

In many places in the state, the Medical Society reports, "there is a lack of organized methods to assure proper treatment of the epileptic as an individual". About 80 per cent of all epileptics can lead a normal or near normal life if treatment is followed and if the public understands their problem.

"Epileptic seizures can be completely controlled in more than half of all epileptic patients by adequate treatment with accepted medication," the Medical Society recommendation said, "Epilepsy is rarely associated with mental retardation; no satisfactory treatment is available, and that epileptics seldom become chronic invalids."

Primary objective of an epilepsy program, the Medical Society says, "is to make the public aware that the epileptic should be treated as an individual and not be rejected because of his disorder".

SUPPLEMENTARY LIST No. 1
TO THE OFFICIAL LIST OF MEMBERS AS OF MARCH 1, 1951

MAY 11, 1951

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Abbamonte, Louis W., 226 N. Park st., E. Orange (7)
Africano, Julius V., 43 Columbia ter.,Weehawken(9)
Alcano, John H., 321 S. 9th st., Newark (7)
Ambrose, Freder'k H.,304 E.High st.,Bound Br'k(18)
Andrews, Albert G. K., P. O. Box 743, Passaic (16)
Arbeit, Sidney R., 56 Gifford av., Jersey City (9)
Auriemma, Michael, 421 Adams st., Hoboken (9)
Bailyn, Emanuel, 400 60th st., West New York (9)
Baldauf, Herman, 210 Greenwich st., Belvidere (21)
Bartolini, Frank, 122 Belvidere av., Washington(21)
Beaugard, Peter A., 88 Clifton pl., Jersey City (9)
Belott, Louis V., 529 Park av., Orange (7)
Berman, Leonard M., 382 Springfield av.,Summit(20)
Bernstein, Israel, 95 Wilson av., Newark (7)
Birrell, Russell G., 56 Church st., Toronto, Cana.(20)
Block, Charles, 51 Baldwin av., Newark (7)
Booken, Gerald J., 1 Johnson av., Newark (7)
Bowman, Ned O., 1001 Georges rd., N. Brunswick(12)
Bozzi, Robert, 406 Roseville av., Newark (7)
Brennan, Alfred T. V., Jr., 19 Engle st., Tenafly (2)
Brotman, Harry, 808 South 11th st., Newark (7)
Brundage, Robert H., 232 Ivy ct., Orange (7)
Byrne, Francis, Jr., 35 Park av., W. Orange (7)
Capell, Harry H., 585 East 27th st., Paterson (16)
Carlozzi, Michael, 307 Walnut av., Cranford (20)
Carlucci, Angelo M., State Village, Skillman (18)
Carpenter, Marcus E., 99 Storms av., Jersey City (9)
Cassini, Henry C., 27 Tremont av., East Orange (7)
Castellano, Martin G., 330 Roseville av., Newark (7)
Castiglia, Peter, 114 Valley rd., Clifton (16)
Catapano, John, 21 Hazelton st., Ridgefield Pk. (2)
Cetrulo, Gerald I., 234 Mt. Prospect av., Newark (7)
Citrino, Robert J., 345 Centre st., Nutley (7)
Clayman, Sigmund J., 280 Hobart st., P. Amboy(12)
Cohn, Isidor, 231 Lexington av., Passaic (16)
Cohn, Perry, 234 Lexington av., Passaic (16)

Connell, John N., 26 Carlton av., Jersey City (9)
Connolly, Joseph A., 147 East 7th st., Plainfield (20)
Connolly, Joseph P., 56 Hamilton st., Paterson (16)
Connolly, Thomas W., 921 Bergen av.,Jersey City(9)
Conti, Michael, 280 Fourth st., Jersey City (9)
Cooper, Ray C., 173 E. Washington av.,Wash'gt'n(21)
Cotton, Norman T., 249 Orange rd., Montclair (16)
Coughlin, John P., 128 Wegman Pky., Jersey City(9)
Cregar, John S., 440 S. Harrison st., East Orange (7)
Crooks, William J., III, Clinton (10)
Crystel, Edward H., 4 Hawthorne av., Nutley (7)
Ctibor, Vladimir F., Califon (10)
Cuddihy, Kathleen, 2023 Center av., Fort Lee (2)
Cutler, Paul, 2801 Pacific av., Atlantic City (1)
Dann, Frederick J., 65 Girard pl., Newark (7)
Dantzig, Henry, 12 S. Franklin st., Lambertville(10)
Del Negro, Albert E., 402 Roseville av., Newark (7)
DeMarco, Luciano E., 57 Belleville av., Bloomfield(7)
Dern, Samuel M., 444 School st., Woodbridge (12)
Devivo, Carmine, 188 South 6th st., Newark (7)
Dodd, Ann H., Morristown Mem. Hosp., Morrist'n(14)
Dolganos, Moses, 268 Palisade av., Jersey City (9)
Donchi, Sol M., 118 Oakview av., Maplewood (7)
Donovan, Joseph, N. J. State Hosp., Greystone P.(14)
Dougherty, Daniel D.,1218 Bloomfield st.,Hoboken(9)
Dren, George W., 191 Lexington av., Passaic (16)
Drezner, Henry L., 216 West State st., Trenton (11)
Duckett, Warren J., 21 Carlton av., Jersey City (9)
Dwork, Harold K., 1 Hansbury av., Newark (7)
Ebenfeld, Samuel W., 344 High st., Newark (7)
Effron, Samuel A., 696 Broadway, Paterson (16)
Esty, Geoffrey W., 6 Ober rd., Princeton (11)
Fares, Louis G., 263 Hamilton av., Trenton (11)
Farrell, George L., Army (2)
Fattel, H. C., Jef'rs'n Davis Hosp.,Houston, Texas(9)
Fedor, John A., 969 South Broad st., Trenton (11)
Feldman, Matthew, 120 Bogart rd.,N. Hackensack(2)
Fenimore, Edward D., 917 Summit av., Jer. City (9)
Ferguson, John, 142 Morris av., Long Branch (13)
Ferguson, William E., Newark City Hosp.,New'k(7)
Finkelstein, Malvin, 2139 Boulevard, Jersey City (9)
Finn, Frederick A., 921 Bergen av., Jersey City (9)
Fischer, Edward J., 29 Ashwood ter., W. Orange (7)
Flax, Ira, 890 South 16th st., Newark (7)
Fleischmann, Viola G., 103 Scotland rd., S. Orange(7)
Floody, Robert J., 324 Kingsland st., Nutley (7)
Foley, James G., 1 East Craig st., Basking Ridge(14)
Forbes, John S., W. Craig st., Basking Ridge (14)
Fortay, Steven O., 86 Green st., Woodbridge (16)
Fortunato, Joseph F., 376 Parker st., Newark (7)
Frankel, Henry, 229 60th st., West New York (9)
Freedman, Jacob S., 178 Hamilton av., Passaic (16)
Freeman, Joseph, 146 West 32nd st., Bayonne (9)
Friedland, Walter, 210 Main st., Hackensack (2)
Galgoczy, Julius, Box 473, Manville (18)
Galotta, Margaret L., 533 Prospect av.,Hackens'k(2)
Gaylord, Earl L., Jr., 85 S. Harrison st., E. Orange(7)
Gebirtig, Theodore, 181 South st., Morristown (14)
Genninger, Lewis E., 95 S. Main st., Phillipsburg(21)
Gilman, Charles M. B., Box 487, Red Bank (7)
Gilpin, Fletcher, 118 North av., W., Cranford (20)
Gindhardt, Floyd D., 1213 Hamilton av., Trenton(11)
Gindhardt, John H., 1213 Hamilton av., Trenton (11)
Gittens, George E., 80 Second st., Somerville (18)
Glasser, John W. H., 39 Gifford av., Jersey City (9)
Glaus, Samuel D., 328 Lincoln av., Avon (13)
Gnassi, Angelo M., 130 Wegman Pky., Jersey City(9)
Goff, Frank J., 62 Maple av., Red Bank (13)
Goldstone, Karl H.,349 Edgewood av.,W.Englew'd(9)
Gordon, Benjamin L., 6917 Atlantic av., Ventnor (1)
Gordon, Sarah, 327 Cedar Lane, Teaneck (2)
Graddick, Lester W., 22 Sussex av., Morristown (14)
Green, Henry, 89 Lincoln Park, Newark (7)
Griffith, Roy, 11 Hill st., Newark (7)
Griscom, I. Norwood, 204 Church st., Boonton (14)
Grueninger, Edward F., 862 Garrison av.,Teaneck(2)
Gruhler, Jean A., 1616 Pacific av., Atlantic City (1)
Grunt, Louis, 190 Clinton av., Newark (7)
Guthorn, Peter J., 601 Grand av., Asbury Park (13)
Guttmann, John S., 303 Clifton av., Clifton (16)
Haines, F. B. Lane, 503 Ninth st., Ocean City (5)
Halnan, John J., Jr., 631 Madison av., Paterson (16)
Halstead, Harry C.,Calco Chemical Co.,Bd.Brook(18)
Hampton, John E., 100 Park av., Washington (21)
Harrington, Walter L.,104 S. Munn av.,E. Orange(7)
Hennessy, John, 500 Market st., Paterson (16)
Hernandez, Manuel, 1974 Boulevard, Jersey City (9)
Hess, George A., Titusville (11)
Hewson, George F., 21 Roseville av., Newark (7)
Horner, John I., 137 W. Kings Highway,Audubon(4)
Horowitz, Robert, 2769 Boulevard, Jersey City (9)
Howe, Edward G., 763 Broad st., Newark (7)
Humbert, Joseph C., Jr., Stewartsville (21)
Hunsicker, Mary A.T.,305 W.Horse Pk.,Had'n Hts.(4)
Hunt, Thomas F., 120 Westfield av., Elizabeth (20)
Husik, Franklin B., 101 S. Main st., Glassboro (8)
Husted, Samuel H., Main rd., Neshanic (18)
Infield, Gerald L., 707 Shord rd., Northfield (1)
Inge, Theodore R., 336 Halsted st., East Orange (7)
Ingling, Harry W., 51 West Main st., Freehold (13)
Irving, Henry C., 13 Warner av., Jersey City (9)
Jacks, Oscar, 476 Mercer st., Jersey City (9)
Jaksch, Maria, 137 Arlington av., Jersey City (9)
Jenkins, Alvah R., 40 Armory st., Englewood (2)
Jenkins, J. R.,Jr.,1703 Funsten av.,S.Franc'co Cal.(2)
Jordan, Walter L., 145 Engle st., Englewood (2)
Kanning, Frederick R.,90 W.Allendale av.,Allend'e(2)
Kaplan, Isaac, 901 Garrison av., Teaneck (2)
Kaplan, S. Bernard, 31 Lincoln Park, Newark (7)
Katz, Herbert I., 56 Elmwood ter., E. Paterson (16)
Katzenbach, C. Buckman,415 W.State st.,Trent'n(11)
Kearney, John V., 335 78th st., North Bergen (9)
Kelley, Charles B. P., 336 Engle st., Tenafly (2)
Kerdasha, George S., 135 79th st., North Bergen (9)
Kimmel, Seymour S., Oxford (21)
Kingma, John G., 345 Broadway, Paterson (16)
Klein, Allan, 8628 Boulevard, North Bergen (9)
Klein, Solomon, 11 High st., Morristown (14)
Knauer, George, Jr., 887 Colonia rd., Elizabeth (20)
Kondor, Joseph S., 1414 S. Broad st., Trenton (11)
Kraczyk, Michael J., 52 Main st., South River (12)
Kraker, David A., 31 Lincoln Park, Newark (7)
Kuhn, William, 116 Livingston av., N. Brunsw'k(12)
Kurtz, Gerald I., 306 Broadway, Paterson (16)
Kurtz, Geza R., 116 Fairview av., Jersey City (9)
Lally, Joseph M., 244 Harrison av., Jersey City (9)
Lamb, Richard R., 887 Bellevue av., Trenton (11)
Landry, Ernest J.,E.R.Squibb & Sons,N.Brunsw'k(18)
Lee, Frederick P., 155A River dr., East Paterson(16)
Leibovitz, Altan C., 261 Lexington av., Passaic (16)
Lemmon, Junius M.,137 Belvidere av.,Wash'gton(21)
Levinson, Robert M., 824 South 12th st., Newark (7)
Levy, Julius, 221 S. Harrison st., East Orange (7)
Liegner, Ben, 858 South 12th st., Newark (7)
Lilien, Milton, 1191 Clinton av., Irvington (7)
Lincoln, Jennings S., 140 Watchung av.,Montcl'r(7)

Lindroth, Lawrence V., 4525 Boulev'd, N. Bergen(9)
Lippman, Harold, 68 Elizabeth av., Newark (7)
Lueddecke, Roland E., 216 Rand'fe av.,E.Ruth'rf'd(2)
Lupin, Edward E., 930 Boulevard, Bayonne (9)
Lupo, Domenico, 763 Broadway, Newark (7)
MacDonnell, Martin J., 40 74th st., North Bergen (9)
Mackler, Harry S., 752 N. Broad st., Elizabeth (20)
Mandell, Sidney N., 2001-3 Palisade av., Union C.(9)
Manno, Bruno, 57 Belleville av., Bloomfield (7)
Marano, Michael A., 2009 Palisade av.,Union City(9)
Marcus, Donald, 647 Stuyvesant av., Irvington (7)
Markowitz, Irwin B., 88 Gifford av., Jersey City (9)
Markowitz, Louis, 380 Park av., Passaic (16)
Marlett, Neumann C., 230 Greenwich st.,Belvid'e(21)
Mason, J. H.,IV.,211 N. Wissahickon av.,Ventnor(1)
Mauriello, Dominic, 46 Bentley av., Jersey City (9)
Maxwell, Carl A., 139 South st., Morristown (21)
Mazzei, Armando, 282 Liberty st., Long Branch (13)
McFeely, Percy R., 242 Palisade av., Bogota (2)
McGuire, Joseph T., 54 Main st., Lodi (2)
Menden, Julian, 45 East Blackwell st., Dover (14)
Michell, George E., 221 High st., Hackettstown (21)
Miller, Herbert G., 176 Union av., Rutherford (2)
Murphy, Patrick H. W., 27 Jefferson av.,Jer. City(9)
Muttart, George W., 2521 Boulevard, Jersey City(9)
Napoliello, Vincent, 125 Clifton av., Newark (7)
Neville, Robert J., 547 Main st., Hackensack (2)
Newman, Julius, 318 Highland rd., S. Orange (7)
Nicholson, Frank P., 895 Summit av., Jersey City(9)
Norris, Alfred W.,200 Chestnut dr.,Packanack L.(16)
Norwich, Louis E., 355 Avenue C., Bayonne (9)
O'Connor, John P., 984 Queen Anne rd., Teaneck (2)
O'Connor, Paul A., 342 Roseville av., Newark (7)
O'Hanlon, George, Medical Center, Jersey City (9)
Onorato, Anna T., 870 Stuyvesant av., Trenton (11)
Parsonnet, Eugene V., 89 Lincoln Park, Newark (7)
Perina, Anson, 3 Community Place, Morristown (14)
Peters, Edgar A. P., 394 Bergen av., Jersey City (9)
Peterson, Charles A., 921 Washington st.,Hoboken(9)
Pindar, Arthur W., 627 Queen Anne rd., Teaneck (2)
Powell, Robert J., 410 N. Ohio av., Atlantic City(1)
Preminger, Max, Marcus Newc'b Hosp.,N.Lisbon(20)
Pusin, Max, 759 Evergreen Pky., Union (9)
Quaglieri, Charles L., 931 Wash'gton st.,Hoboken(9)
Rattenne, Edward, 549 Mt. Prospect av., Newark (7)
Ravits, Everett C., 5 Pangborn pl., Hackensack (2)
Read, Donald B., 105 Hudson st., Jersey City (9)
Rentrop, C. A., Jr., 364 E. Ridgew'd av., Ridgew'd (2)
Rice, Franklin W., 37 Miller rd., Morristown (14)
Richlin, Padie, 118 Johnson av., Newark (7)
Rigeron. D. George, 160 Willard av., Bloomfield (7)
Ringewald, Robert H., 284 Broad av., Leonia (2)
Ritota, Michael C., 85 Stuyvesant av., Newark (7)
Robie, Theodore R., 144 Harrison st., E. Orange (7)
Robinson, Anne W.,177 Outer dr.,O. Ridge,Tenn.(20)
Rogers, James A., 274 Carroll st., Paterson (16)
Rosen, Albert P., 316 Kenneth av., Fair Lawn (2)
Rowe, Joseph A., 174 S. Maple av., Ridgewood (2)
Rubino, Nicholas M., 235 Roseville av., Newark (7)
Ruffer, Ralph A., 619 Fifteenth st., Union City (9)
Ruggio, Joseph, 8 Hedden ter., N. Arlington (7)
Salmeri, Edward J., 253 River rd., Red Bank (13)
Scheiber, Geza, 769 Kearny av., Arlington (7)
Schiro, S. Robert, 73 Main st., Lodi (2)
Schulman, Abraham S., 4518 Boulevard, Union C.(9)
Scialli, Vincent A., 278 Fourth st., Jersey City (9)
Shannon, James B., 66 S. Fullerton av., Montclair(7)
Shannon, Lardner M., 66 S. Fullerton av.,Montcl'r(7)
Sharp, Reuben L., 719 Cooper st., Camden (4)
Shepard, Myron, 435 60th st., West New York (9)
Shipman, Meyer P., 575 Broadway, Paterson (16)
Shuman, Bernard J., 2643 Pacific av., Atl. City (1)
Silverman, Mendel, 84 Park av., Rutherford (2)
Simkin, Abraham, 232 Broadway, Passaic (16)
Simmons, Richard J., 254 First av., Elizabeth (20)
Simon, Fritz C., Hampton (10)
Skeats, John M., 100 Main st., Orange (7)
Skvarla, John A., 17 Koster st., Wallington (2)
Smaine, Enrique del C.,554 Hack'ns'k st.,Carlst't(2)
Smith, Charles H., 264 Ridgewood av., Glen Ridge(7)
Smith, Frank W., 1238 S. Clinton av., Trenton (11)
Smith, Nelson M., 144 Harrison st., E. Orange (7)
Soschin, Samuel J., 31 Lincoln Park, Newark (7)
Spiaggia, Francesco, 509 N. Wood av., Linden (20)
Spillane, Timothy H.,379 S. Main st., Phillipsb'g(21)
Stabile, John A., Grand av., W. Trenton (11)
Stark, Harry L., 680 Boulevard, Bayonne (9)
Steele, Stephen, 10 West Gibbons st., Linden (20)
Steneck, Gustav G., 275 River rd., Bogota (2)
Stickles, Lloyd C., 49 Parkhurst st., Newark (7)
Storer, Alexander, Jr., 563 Haddon av.,Collingsw'd(4)
Strassburger, Paul J.,330 Washington av.,Bellev'e(7)
Street, Daniel B., 27 Woodlawn av., Jersey City (9)
Suesserman, Henry, 870 South 13th st., Newark (7)
Sullivan, James M., III., 202 Spring st., Trenton (11)
Surran, Carl A., 1616 Pacific av., Atlantic City (1)
Swiney, Juliana C., 325 Avenue C, Bayonne (9)
Taft, Herman L., 4401 Boulevard, North Bergen (9)
Taylor, Earl S., 55 Westcott rd., Princeton (11)
Temes, J. Howard, 2250 Boulevard, Jersey City (9)
Tenney, Albert S., 6 N. Munn av., East Orange (7)
Trilling, Leonard J., 423 Broadway, Paterson (16)
Tucci, Peter, 55 Grove st., Montclair (7)
Utkewicz, Edmond A., 2633 Boulevard, Jer. City (9)
Vail, William D., 73 Hobart av., Short Hills (7)
Varney, William H., 120 Belvidere av.,Wash'gt'n(21)
Voorhies, W. S.,Jr., N.J. State Hosp.,Greystone P.(14)
Wade, Francis A., 12 Mt. Kemble av., Morrist'n(14)
Wegrocki, Adolph A., 588 Sanford av., Newark (7)
Welles, Morley P., Army (7)
White, Richard E., Grandview av., Wyckoff (16)
Williams, Paul T., 626 Perry st., Trenton (11)
Willis, Benedict P., 185 Montross av., Rutherford (2)
Willner, Albert, 115 Ridge rd., N. Arlington (7)
Woolf, Bernhardt H. V., 41 Hedden ter., Newark(7)
Wright, Walter A., 630 Flush'g av.,Brooklyn,N.Y.(7)
Wynder, Alfred, 654 Lyons av., Irvington (7)
Zampella, Arthur, 921 Bergen av., Jersey City (9)
Zapf, Reville D., 100 West Mantua av., Wenonah (8)
Zuckerman, Ruth, 309 Johnson av., Teaneck (2)

OBITUARIES

DR. JOHN S. CONROY

Dr. John S. Conroy, formerly of Burlington, died on April 1, 1951, in Miami, Florida.

Dr. Conroy was born in Burlington in 1887. He was graduated from Jefferson Medical College in 1910, and practiced in Burlington from 1912 until ill health forced him to retire in 1947. He served his internship at Kings County Hospital, New York; did public service work at Otisville Sanitarium, New York; and contagious disease work at Kingston Avenue Hospital, New York.

Dr. Conroy was an Emeritus Member of the Burlington County Medical Society and The Medical Society of New Jersey.

DR. LINN EMERSON

One of New Jersey's pioneer ophthalmologists, Dr. Linn Emerson died on April 17, 1951, at the age of 77. Dr. Emerson is generally credited with having been the first to design trifocal eye-glasses. Born in upstate New York, he came to Philadelphia for his medical education, receiving his M.D. degree at the Jefferson Medical College in 1897. He interned in Brooklyn and in 1901 came to New Jersey where he entered private practice in Orange and in Dover. He served as senior ophthalmologist at many hospitals in northern New Jersey and also at the old Manhattan Eye, Ear, Nose and Throat Hospital in New York.

He was always much interested in Braille work and is largely responsible for the Braille collection in the Orange Public Library.

Dr. Emerson used to take his winter vacations in Bermuda and achieved the distinction of being the first U. S. doctor ever to be licensed for practice in that colony. He was the author of a book about the Emerson family and of dozens of scientific monographs and articles.

DR. J. EDGAR HOWARD

Dr. J. Edgar Howard, a past-president of the Camden County Medical Society, died on March 9, 1951, at the age of 76.

Dr. Howard was a graduate of Jefferson Medical College, class of 1901. He had practiced medicine in Haddonfield for the last 48 years, and was president of the Board of Managers of the Tuberculosis Division of Lakeland Sanitarium.

DR. CHARLES M. ROBBINS

There was something gallant about the last years of Charlie Robbins. He knew he was in the grip of a serious illness, yet he kept working almost until the end, cheering and helping others, retaining his energy and his optimism without flagging. His death on April 4 put a stop to a characteristic American career. He was born in Europe in 1893, came to this country in childhood and was graduated from Bellevue in 1914. He moved to Newark, became interested in surgery, and displayed a remarkable technical talent that led to his rapid advancement in that specialty. He became a chief of surgery at the Newark Beth Israel, and was consultant surgeon to numerous other hospitals. He was a diplomate of the American Board of Surgery and vice-regent of the International College of Surgery.

In 1942, on the eve of his 50th birthday, he joined the Army. While others of his age—and younger—were sitting it out, he gave up a lucrative practice and accepted the grade of major in return for an opportunity to serve his country in the Armed Forces. He had numerous cultural interests—was president of the Griffith Music Foundation, for instance, and a Trustee of the Newark Public Library.

In 1940 he took over command of the public relations program of The Medical Society of New Jersey and infused it with a dynamic spirit, the momentum of which is still apparent.

He was generous with his time, his money and his energies, and a long paragraph could be written about his numerous and thoughful philanthropies. But he would not have liked to see such a listing.

DR. WILLIAM A. ROBINSON

Dr. William A. Robinson of Ocean Grove, died on April 26, 1951, after a brief illness. He had practiced medicine in Ocean Grove for the past 45 years.

Born in New York in 1891, Dr. Robinson settled in Ocean Grove in 1906 after being graduated from Jefferson Medical College and interning in St. Michael's Hospital, Newark. He was chief of staff of the Methodist Home for the Aged, Ocean Grove, physician and an organizer of the Ocean Grove first air squad, president of the town's board of fire commissioners, physician of the Neptune board of health for the past 44 years and Neptune police physician. He also served on the staff of Monmouth Memorial hospital.

NEW JERSEY STATE DEPARTMENT OF HEALTH
PUBLIC HEALTH NEWS FOR THE PHYSICIAN

The Local Health District Act, (Assembly Bill No. 1) was approved by Governor Driscoll on May 14. This permits municipalities to establish local consolidated health departments or county health departments.

FELLOWSHIP FOR CANCER TRAINING

A fellowship will be available on July 1, 1951, for a qualified physician for one year of full-time training in the field of cancer at the James S. Green Memorial Tumor Clinic, Elizabeth, N. J. Preference will be given to a physician who has had a residency in surgery and who lives in New Jersey.

A stipend of $3000 for one year is provided by the New Jersey State Department of Health, Bureau on Cancer Control. Free room and board are available, if desired, at Elizabeth General Hospital, where the Tumor Clinic is housed.

Applications may be obtained by writing to Dr. Daniel Bergsma, Commissioner, State Department of Health, Trenton 7, New Jersey.

PUBLIC HEALTH SERVICES OUTLINED IN BROCHURE

The State Department of Health recently published a brochure on services provided by the Department and on the services provided by effctive local health departments. The brochure is entitled *Public Health Is Your Health.* This brochure presents the organization and functions of the New Jersey State Department of Health of 1951, reorganized and revitalized under the new state Constitution. The booklet outlines the services of each of its six major divisions and of the four state health districts now being set up.

N. J. PREMARITAL CERTIFICATES ACCEPTABLE IN GEORGIA

The Department of Public Health, State of Georgia, has announced that the Georgia law has been amended so that premarital certificates from New Jersey are now acceptable for issuance of marriage licenses in Georgia.

VISITING NURSE SERVICES FOR VETERANS

Veterans under authorized treatment by private physicians for service connected disabilities are now eligible to receive any Visiting Nurse service which may be required at government expense. This service will be authorized only when medically indicated and only upon the specific recommendation of the attending physician.

Physicians treating veterans under authorization of the VA are requested to write to the Medical Division, Veterans Administration, Regional Office, 20 Washington Place, Newark, in any instance when Visiting Nurse service is required. It is essential that such communications include the full name of the veteran, address, claim number, and the diagnosis of the condition for which the service is being requested. If allowed, the Veterans Administration will make all arrangements for the service.

Rarely, and under medically emergent conditions, the attending physician may find it necessary to request Visiting Nurse services by telephone. In these cases, the physician is requested to call MArket 3-6800, extension 440, in Newark.

In making this additional service available to eligible veterans through their attending physicians, the Veterans Administration has had the splendid cooperation of the many community Visiting Nurse Associations in New Jersey.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, April 13, 1951, at 9 p. m., DR. G. RUFFIN STAMPS, presiding.

DR. FRANKLIN F. SNYDER, associate professor of Obstetrics, Harvard Medical School, Boston, spoke on "Labor and the Child"; sub-title "Practical Lessons from Current Studies of Intrauterine Life".

Dr. Stamps, in a brief and fitting ceremony, presented certificates of honor to those members who have devoted fifty years or more of their lives to the honorable practice of our profession. Personal presentation was made to Drs. William W. Fox, Isaac E. Leonard, Benjamin L. Gordon, and Edward Guion in absentia.

Dr. Allman announced that he had receivd word from Dr. Whims that the American College of Physicians will meet in Atlantic City in April, 1953.

Dr. Lawrence Wilson, reporting for the Tuberculosis Committee, requested Society approval to recommend to the hospital management that the 70 mm. x-ray machine at the Hospital be used to x-ray all admissions to the dispensary and the wards. It was voted that approval of the Society be granted for the recommendations to be made by a committee consisting of Dr. Wilson, chairman, Drs. Salasin, Bradley and Hyman.

Dr. James Gleason, reported on a group hospitalization plan for the Society. It was decided, after discussion, that a newly-formed committee, a Hospitalization Insurance Committee, would best be able to handle the extensive duties that would be involved. The President accordingly appointed Dr. Gleason chairman, with power to select his own committee members.

DRS. RALPH RUPPERT and DELMO MATTIOLI were elected to membership.

A letter from Dr. Frank Konzelmann was read to the Society. Dr. Konzelmann stated that he has recently been acceped into the District of Columbia Medical Society, and with great regret presented his resignation from this Society.

Acknowledgments were received from Senator Farley and Assemblymen Salsburg and Glenn, pledging their cooperation in opposing current harmful legislation, as requested by the Society.

Approval of the Society for the appointment of Dr. Edwin S. Woolbert to serve as physician in the Baby-Keep-Well Station in Pleasantville, was given to the Bureau of Maternal and Child Health.

BURLINGTON COUNTY

F. W. Metzer, M.D., Reporter

PRESIDENT BETTS called the April 12, 1951, meeting of the *Burlington County Medical Society* to order at the Riverton Country Club. As is the custom of this Society, the program for the April meeting is composed of interesting cases presented by the County Society's members. As usual, it was one of the best meetings of the year. The Chairman of the Program Committee, Dr. Luis E. Viteri, introduced the speakers.

The first speaker was DR. PERRY MACNEAL whose topic was *Paroxysmal Headaches.* After a few introductory remarks, he presented a technicolor movie on migraine which was very kindly loaned by the Sandoz Chemical Works, Inc. At the completion of the movie, Dr. MacNeal described the type of persons who suffer with migraine and also discussed the common and the less common symptoms of this condition. He mentioned the various drugs for this condition and their usefulness.

The second speaker was DR. HOWARD HEBBLE whose topic was *External Otitis Media.* He discussed the etiology, the general principles of therapy, the predisposing causes and the drugs to be used in treatment. After Dr. Hebble had completed his fine presentation, he asked Dr. Bartine Ulmer to discuss the subject. Dr. Ulmer told about his experiences in his many years of practice with this disease.

The third speaker of the evening was DR. ANTHONY ZICCARDI who spoke on *Arterial Transfusion.* He briefly related the history and the need for this type of procedure. He discussed the various types of equipment which are now in use, most of which are cumbersome and difficult to operate. He presented an apparatus for arterial transfusion which was designed by his brother and him. This apparatus was very complete and easily operated. He demonstrated it to the Society, showing how he could maintain, easily and quickly, any desired pressure. This paper was discussed by Dr. Lindley Reagan, who was enthusiastic about this new design.

The committee appointed to study the Coroner's system made its report and made recommendations. After discussion, it was regularly moved that the recommendations be presented to the County Freeholders.

CAMDEN COUNTY

L. G. McAfoos, Jr., M.D., Reporter

March 6, 1951, was Case Report Night for the *Camden County Medical Society,* which held its regular monthly meeting at the City Dispensary Building with President O. R. KLINE, presiding.

Dr. Henry B. Decker, Second Vice-President of The Medical Society of New Jersey, briefly reviewed the various activities of the State Society.

Dr. Paul Mecray, chairman of the Program Committee, introduced the following speakers: DR. VINCENT T. MAHONEY, who presented a case of *Intracranial Aneurysm;* DR. HARRY PINSKY, who discussed a case of *Endocrine Dyscrasia with Cushing's Syndrome;* and DR. HAROLD K. EYNON, who reported two cases of *Beck's Sarcoid treated with Cortisone.*

Dr. E. A. Y. Schellenger reporting for the Welfare Committee reviewed the meeting held in Tren-

ton on March 4. Reference was made to the various legislative bills now before the Assembly and to the attitude of The Medical Society of New Jersey toward these bills.

An announcement was made of the official notification from the State Society that the dues of doctors entering the Armed Service, regardless of what time in the current year they enter, was to be refunded. The County Society decided to adhere to this principle in regard to local dues.

DR. WALTER CRIST, in the absence of President O. R. KLINE, presided at the regular monthly meeting of the *Camden County Medical Society* held on April 3, 1951, at 9:00 p. m. in the Dispensary Building.

DRS. HERBERT M. MARKS and MARY T. HUNSICKER were introduced to the Society after taking the oath of membership and signing the roll book.

Dr. Paul Mecray, Chairman of the Program Committee, introduced the speaker of the evening, DR. LEWIS S. CORIELL, Medical Director of the Camden Municipal Hospital, who spoke on *The Present Day Diagnosis and Treatment of Contagious Diseases*. Dr. Coriell is recognized as one of the foremost authorities in this section of the country on virus diseases.

The Secretary reporting for the executive committee, discussed Senate Bill No. 254 which creates a Board for the licensing of opticians. This bill has the support of The Medical Society of New Jersey, and all members of our local Society are interested in its passage.

Dr. Crist announced the Annual Outing of the Society and appointed the committee for the event.

DR. BEULAH HOLLINSHED of Camden was elected to Emeritus Membership in the County Society.

Reference was made by the chair of the need of a doctor and dentist in the Borough of Bellmawr.

James P. Harbeson, M.D., Reporter

The annual meeting of the *Camden County Medical Society* was held on May 1, 1951, at the Camden City Dispensary with DR. ORAM M. KLINE presiding.

DR. VINCENT T. MAHONEY, DR. EDWARD D. HOLFENNER, and DR. NATALYA MUSULIN were elected to full membership in the society.

The regular committees gave short reports on their activities during the past year, none of which required any action by the members of the society.

Dr. Kline, the retiring president, reviewed the outstanding activities and accomplishments of the past year. He stressed the position of the new Grievance Committee and the importance of good public relations with the laity.

The nominating committee recommended the following panel of officers for 1951-1952, all of whom were unanimously elected: *President*, Dr. Walter A. Crist; *President-Elect*, Dr. William Braun; *Treasurer*, Dr. Robert N. Bowen; *Historian*, Dr. Helen F. Schrack; *Reporter*, Dr. James P. Harbeson; *Trustee*, Dr. James S. Shipman; *Censor*, Dr. Oram R. Kline.

Dr. Braun read a memoir to DR. JOHN EDGAR HOWARD who died March 8, 1951.

CUMBERLAND COUNTY

Norman W. Henry, M.D., Reporter

The *Cumberland County Medical Society* met at Richards' Farm, Bridgeton Pike, on April 10, 1951, and DR. CARL WARE, president, presided.

A letter was read to the Society members asking them to express their views on forming a Woman's Auxiliary of our Society. As before there was no interest or questions raised concerning this move and our Society will not sponsor such a group.

The report of the Maternal Mortality Committee concerning the statistics recently reviewed from 1933 to 1949 was received with much gratitude in that the state of New Jersey ranks high in the nation with the fetal mortality 0.7 per 1000 births.

A letter from Dr. H. H. Wilson resigning as treasurer was read. He has been the treasurer since October 1927 and has performed the duties of his office exceedingly well. The Society accepted the letter of resignation with regret.

The Postgraduate Education Committee in charge of Dr. Sherman Garrison reported that there will be an interesting course of six lectures early in the fall on various medical subjects. These lectures will be held in the large Armory at Millville, and they will be sponsored by our Society.

Two new members were admitted to the Society. DR. MORRIS SHERMAN, Bridgeton, formerly of Alabama, was elected by transfer. DR. ROBERT A. LEVENSON, Vineland, was unanimously voted into the Society.

Dr. Kurt Hansen was chosen to be the collector of Blue Cross membership premiums. The Society will now have the privileges of the group enrollment.

The matter of the Judicial Committee was brought before the entire Society in detail. The constitution of our Society was read with the new revisions, and it will be voted upon finally at the next regular meeting. A brief discussion concerning the functions of the Judicial Committee especially on the authority of the committee to request testimony from individual doctors.

The following officers were elected for the year 1951-52: *President*, DR. E. C. GREENE; *President-Elect*, DR. N. W. HENRY; *Treasurer*, DR. N. MARCHIONE; *Secretary*, DR. MARY BACON; *Reporter*, DR. F. T. AITKEN.

The following were elected to the Executive Committee: Dr. K. Hansen, Dr. K. Corson, and Dr. A. Kump. Dr. Charles Gray was re-elected to the board of censors. Dr. A. Kump was again elected to be a member of the State Nominating Committee. Dr. A. Kump and Dr. N. Henry were elected as delegates to the annual State Society meeting.

ESSEX COUNTY

Elizabeth R. Brackett, M.D., Reporter

On April 12, 1951, our monthly meeting was held with our President, DR. OTTO G. MATHEKE, SR., presiding. Following the usual business we had an opportunity to meet our new State Executive Officer, Mr. Richard I. Niven and enjoy his greetings and presentation of his objectives.

This being Cancer Week our program was on "Cancer" with four speakers from our own County Society. Dr. Joseph I. Echikson, Chairman, Execu-

tive Committee, Essex County Chapter, American Cancer Society, was moderator. The speakers were:

1 William H. Seward, M.D., Roentgenologist, Orange Memorial Hospital—X-ray Diagnosis of Cancer.
2. George Koeck, M.D., Radiotherapist, St. Michael's Hospital—X-ray Therapy of Cancer.
3. Louis Levinson, M.D., Radiotherapist, Newark Beth Israel Hospital—Radioisotopes in Cancer.
4. Royal A. Schaaf, M.D., Attending Surgeon and Director, Presbyterian Hospital—Surgery in Cancer.

A few of the points stressed follow:

1. Remember that x-ray reports are interpretations of shadows and densities which have been correlated with previous x-ray findings in known pathological conditions.

2. Consultation with the roentgenologist and providing him with a careful history of the condition and summary of the clinical findings will aid greatly in a more intelligent interpretation of the films.

3. It is a fallacy to depend on barium given by mouth to diagnose colon pathology as the presence of a ball-valve type of obstruction can be missed.

4. X-ray therapy methods have been so greatly improved that a 20 to 30 per cent improvement in survival have been noted.

5. Choice of the dose must be to destroy the tumor cells but not the other cells of the body.

6. Cancer of the skin and appendages gives exceptionally good results with a 70 to 90 per cent cure.

7. A tabulation of results in treatment of various body systems was presented.

8. Use of radioisotopes makes possible the first internal cellular radiation treatment.

9. Careful selection of cases for surgery and for radiation therapy was based on experience and survival rates as presented by some outstanding studies.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The regular monthly meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club, March 15, 1951, with A. Guy Campo, M.D., presiding. The scientific portion of the program was first, the speaker being the past-president of the American Medical Association, Edward L. Bortz, M.D. Dr. Bortz, who is associate professor of Medicine, Graduate School of Medicine, University of Pennsylvania, discussed a favorite topic of his, "Geriatrics Today". During this enlightening presentation, a research associate of Dr. Bortz's, John Dowdell, M.D., read a paper concerning arteriosclerosis, its possible etiology and pathogenesis. The entire program was well received, including the pertinent discussion opened by our own Henry L. Sinexon, M.D.

The Honorable C. William Haines discussed Assembly Bill No. 1, concerning the establishment of regional health units. The society took no action on the matter at this time. Mr. Davies again discussed the Group Blue Cross plan made available to our members at a great saving. Members desiring to enroll were urged to complete the application forms at once.

A. Guy Campo, M.D., was in the chair at the regular monthly meeting of the *Gloucester County Medical Society* which was held at the Woodbury Country Club, April 19, 1951.

It was decided to have a press conference of Gloucester County news editors and representative members of the Gloucester County Medical Society, the expense to be borne by the society. Wendell Burkett, M.D., brought us up to date on the status of county physicians and the Armed Services. He also stated that there would soon be announced a postgraduate course in this area, probably to be held in Camden.

Drs. Ulmer, Hughes and Collins were appointed as a nominating committee for next month's election of officers.

The scientific program was contributed by Richard T. Smith, M.D., assistant in Medicine at the Jefferson Medical College, chief of the Arthritis Clinics at Jefferson and Pensylvania Hospitals and the Benjamin Franklin Clinic, and chief of Clinical Research at Sharp and Dohme. This illustrated talk on "Building a Treatment Program in Arthritis" was extremely interesting, practical, and incorporated all of the latest thoughts on the subject. Many questions were ably answered by Dr. Smith at the conclusion of his formal presentation.

HUDSON COUNTY

Harry J. Perlberg, M.D., Reporter

With Dr. Meyerson presiding, the *Hudson County Medical Society* held its regular monthly meeting at Murdoch Hall, Jersey City Medical Center, on April 3, 1951.

Dr. John W. H. Glasser of Jersey City was elected to membership.

The scientific session consisted of a symposium on Psychiatry. The Moderator was Dr. Roland J. Lynch, medical director of the Hospital for Mental Diseases, Secaucus. Papers presented were: *The Psychiatrist Looks at the Delinquent* by Dr. William M. Doody of Jersey City; and *Psychiatry in Pregnancy* by Dr. John J. Scott of Weehawken. Discussants were Dr. Reznikoff and Dr. Figurelli. Dr. Lynch terminated the discussion.

At the request of the Veterans Administration. Dr. Meyerson announced that Visiting Nurse Services are being made available by Veterans Administration to eligible veterans.

MIDDLESEX COUNTY

Frank L. Paret, M.D., Reporter

With Marshall Smith, M.D., president, presiding, the *Middlesex County Medical Society* held it regular monthly meeting in the Roosevelt Hospital, Metuchen, on March 21, 1951, at 9:00 p. m.

David V. Habif, M.D., associate professor of Surgery and director of the Surgical Laboratory at the College of Physicians and Surgeons, Columbia University, speaking on "Anticoagulant Therapy in Thrombo-embolism" reviewed the use of heparin and synthetic anti-coagulants, and discussed the control of bleeding due to hypo-prothrombinemia produced by anticoagulant therapy.

WILLIAM TOTH, M.D., of Perth Amboy was elected to Associate membership for a two year period. DRS. ARMAND S. MAZEI, New Brunswick, on transfer from Monmouth County Medical Society, and SIGMUND CLAYMAN, Perth Amboy, on transfer from New York County Medical Society were elected to Regular membership.

Dr. Fred S. Taber, chairman of the Committee on Pollomyelitis, reported the findings of the committee and recommended that the County Medical Society approve the continued operation of the Middlesex County Polio Center—provided the Board of Governors proceeded at once with their plans to insure: (1) Enlargement of bed space; (2) provision of adequate facilities for kitchen, operating room, laboratory, x-ray, physio-therapy and storage; (3) resident physician; and (4) reorganization of the medical staff upon recommendation of the Middlesex County Medical Society, so as to meet American College of Surgeons standards.

In addition, a separate recommendation was passed that the Board of Chosen Freeholders of Middlesex County be requested to form a County Hospital Planning Board to study the overall needs of this county for adequate hospital beds for general, contagious diseases, convalescent and chronically ill patients. A motion that the Polio Committee remain in force to investigate the situation further and to recommend for the consideration of the Polio Hospital Board, a new medical staff, was seconded and passed.

DR. MARSHALL SMITH, the president, called the April 18, 1951, meeting of the *Middlesex County Medical Society* to order at 9:00 p. m. in the Roosevelt Hospital, Metuchen.

DR. SINA BAUM of Perth Amboy was elected to a two-year period of Associate membership. DR. EDWARD BRADY of New Brunswick was elected to Regular membership from Associate membership and, DR. JOHN ANDERSON, retired vice-president of E. R. Squibb & Company and discoverer of the role of the tick Dermacentor Andersoni in the transmission of Rocky Mountain Spotted Fever, was elected to Honorary membership.

DR. STUART W. COSGRIFF of the Presbyterian Medical Center, New York City, speaking on "Medical Aspects of Anti-Coagulant Therapy" discussed the etiology and treatment of thromboembolic disease at length.

Dr. Marshall Smith reporting for Dr. Fred S. Taber, chairman of the Committee on Poliomyelitis, stated that the New Jersey State Board of Health will issue a statement that acute polio cases are acceptable in general hospitals where routine isolation precautions can be observed.

Dr. Charles F. Church, chairman of the Nutrition Committee, reports that the search for individuals with hyperglycemia, during 1950 has revealed a total 1.77 per cent of 1300 surveyed. These cases were later proved to have undiscovered diabetes. This figure compares favorably with the national average of 1.8 to 2 per cent. A motion that the nurse in charge of the Tuberculosis and Health League Center be instructed to keep a case register of the newly discovered diabetics and to follow the cases up by home visits, if necessary, to insure proper physician care, was passed.

A letter from the Veterans Administration revealed that visiting nursing care was available to veterans with service connected disabilities at Government expense.

Dr. Martha F. Leonard moved that the County Medical Society go on record as opposed to the hospitals in the county publishing records of their admissions and discharges. This motion was unanimously approved.

MONMOUTH COUNTY

Sidney M. Hodas, M.D., Reporter

A paper on *Interpretation of Electrolyte Patterns*, by DR. FRANCIS D. SPEER, professor and director of the Department of Pathology and Clinical Pathology, New York, Medical College and Flower and Fifth Avenue Hospital, was the feature of the regular monthly meeting of the *Monmouth County Medical Society*, at the Monmouth Memorial Hospital, Long Branch, on February 28, 1951, DR. J. BERKELEY GORDON, President-Elect, presiding.

On recommendation of the membership committee DR. WILLIAM G. HERRMAN of Deal and DR. HARRY B. SLOCUM of Long Branch were elected to Emeritus Membership. DR. DONALD W. BOWNE, Wamamassa, DR. WILLIAM C. ELLIS, Shrewsbury and DR. CHARLES W. KORBONITS of Bethlehem, Pa., all of whom are now in military service, were elected to full membership. Also elected to full membership were DR. WILLIAM A. HERBERT, Avon, DR. EDWIN J. OTIS, Long Branch and DR. JOHN J. MOSIG of Avon. Courtesy membership was extended to DR. JOSEPH GIANNASIO, who is now a member of the Hudson County Medical Society.

DR. HARRY R. BRINDLE, Chairman of the Nominating Committee, reported the slate of officers for the coming year.

The staff of the United States Army Hospital at Fort Monmouth were the hosts at the regular meeting of the *Monmouth County Medical Society* on March 28, 1951, at the Red Cross Building, Fort Monmouth, prior to which a dinner was served. The Society was greeted by COLONEL HAROLD V. RAYCROFT, Commanding Officer of the Station Hospital and MAJOR-GENERAL FRANCIS H. LANAHAN, Commanding Officer of Fort Monmouth.

The presentation of the evening was *The Clinical Problem of Portal Hypertension and Its Surgical Treatment*, by LOUIS M. ROUSSELOT, M.D., director of Surgery, St. Vincent's Hospital, New York.

The following officers for the coming year were unanimously elected: *President*, DR. J. BERKELEY GORDON; *President-Elect*, DR. ANTHONY J. DE VITA; *Secretary-Treasurer*, DR. GEORGE J. MCDONNELL; *Reporter*, DR. SIDNEY M. HODAS; *Board of Censors*, DR. FRANK J. ALTSCHUL; *Executive Committee*, DR. LESTER A. BARNETT, DR. D. F. FEATHERSTON, DR. F. LAWTON HINDLE; *Representative to District Judicial Council*, DR. STEPHEN R. CASAGRANDE.

Upon recommendation of the Membership Committee, DR. SAMUEL D. GLAUS, Avon, and DR. PETER J. GUTHORN, Asbury Park, were elected to full membership.

The Revised Constitution and By-Laws were unanimously accepted.

MORRIS COUNTY

T. R. Failmezger, M.D., Reporter

The *Morris County Medical Society* met on April 19, 1951, at the Chilcott Laboratories in Morris Plains.

County Judge Howard F. Barrett introduced JUDGE ALBERT H. HOLLAND, member of the New Jersey State Parole Board, a practicing attorney and a member of the Adoption Committee of the Council of Social Agencies, who spoke on "The Doctor in Adoptions". This problem has always been of particular interest to Judge Holland, who was glad to discuss it with the members of the Society.

This was followed by a talk by DR. SIDNEY C. WERNER, assistant physician at the Presbyterian Medical Center and Vanderbilt Clinic in New York City and associate professor of Medicine at Columbia, who spoke on "Use of Radioactive Iodine in Treatment and Diagnosis of Thyroidism".

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on March 20, 1951, at 9 p. m., at the Woman's Club, Paterson. The President, JOHN E. LEACH, M.D., presided at the meeting.

Seven applicants were elected to Active membership: DRS. SAMUEL A. EFFRON, JOHN F. HENNESSY, and JOHN G. KINGMA, Paterson; PERRY D. COHN, Passaic; ALFRED W. NORRIS, Packanack Lake, and JOHN S. GUTTMANN and PETER C. CASTIGLIA, Clifton. DOMINIC A. KUJDA, M.D., East Paterson, was elected to Associate membership.

Delegates and Alternates were elected as Passaic County representatives at the State Society Convention to be held in Atlantic City May 14, 15 and 16.

The speaker of the scientific session, ELMER L. SEVRINGHAUS, M.D., presented an excellent discussion on "Steroid Hormones" which was illustrated by lantern slides. He is Director, Clinical Research, Hoffmann-La Roche, Inc., Nutley, and a member of the American Board of Internal Medicine, Central Society for Clinical Research, Association of American Physicians, American College of Physicians, American Society for Clinical Investigation, Association for the Study of Internal Secretions, American Psychosomatic Society.

UNION COUNTY

E. M. Satulsky, M.D., Reporter

The regular meeting of the *Union County Medical Society* was held on March 4, 1951, at the Esso Research Center, Standard Oil Development Company in Linden. DR. HERSCHEL S. MURPHY, the president, called the meeting to order at 8:30 p. m., and conducted the general order of business.

A resolution approving the medical examination form introduced by the Bergen County Medical Society was passed. It was also recommended that all municipalities of Union County adopt this form and that some provision be made to provide legal protection for the testifying physician.

Upon recommendation of the membership committee the following physicians were unanimously elected to full membership: DRS. PHILLIS D. SCHAEFER and BERNARD WALLACK of Plainfield, the former as a transfer from the Philadelphia Medical Society and the latter as a transfer from Somerset County Medical Society; DR. ROWLAND D. ROEKER, of Summit, as a transfer from the Somerset County Medical Society; DR. ERNST A. MAY, of Summit, as a transfer from the Essex County Medical Society: DR. FRANCIS E. MARTIN, of Springfield, as a transfer from the Warren County Medical Society; DR. FREDERICK ROSENFELD, of Elizabeth, as a transfer from the South Dakota Medical Society.

The scientific portion of the meeting was under the auspices of the Maternal Welfare Committee. The guest speaker was DR. SAMUEL A. COSGROVE, Medical Director and Obstetrician, Margaret Hague Maternity Hospital, Jersey City. Dr. Cosgrove spoke on *Indications for Cesarean Section and the Advantages of the Low-Flap Over the Classical Type.* The paper was excellent and was most ably presented by this well-known authority.

L. M. Townsend, M.D., Reporter

Following a tradition of many years the Muhlenberg Hospital welcomed the *Union County Medical Society* for its annual business meeting and election of officers on April 11, 1951. Our retiring president, DR. HERSCHEL S. MURPHY, reported on the major activities and accomplishments of the society during the past year.

During the business section of the meeting the previously proposed and rather extensive *Amendments to Constitution and By-Laws* were passed. Among other provisions the new amendments provide for the formation of a new Judicial Committee to replace the old Board of Censors.

New candidates elected to membership were: DR. MICHAEL CARLOZZI of Cranford; DR. GEORGE KNAUER, JR. of Elizabeth; and DR. FRANK SPIAGGIA of Linden; while DR. LANSING Y. LIPPINCOTT of Plainfield was elected an emeritus member of the society.

The speaker of the evening, MR. CARL W. TODT, C.P.A., of Elizabeth was then introduced to the society by Dr. Murphy. Mr. Todt's talk on *Tax Problems of the Doctor* sparkled with wit and emphasized those fundamentals of accounting, such as a record of all receipts and payment of all bills by check, which by themselves would avoid most serious tax problems.

Before the close of the meeting Dr. Murphy announced the result of the annual election and administered the oath of office to the following officers for 1951-52: *President,* DR. LOUIS S. WEGRYN; *First Vice-President,* DR. NORMAN W. BURRITT; *Second Vice-President,* DR. EMANUEL M. SATULSKY; *Treasurer,* DR. HENRI E. ABEL; *Secretary,* DR. EDWARD G. BOURNS; *Trustee 1954,* DR. ELMER P. WIEGEL; and *Reporter,* DR. LESLIE M. TOWNSEND.

WOMAN'S AUXILIARY

MRS. THOMAS H. McGLADE, PRESIDENT 1951 - 1952

Mrs. Thomas H. McGlade, the former Dorothy Barnes Henry, was born in Catasauqua, Pa., and received her early education in the public schools of that community. Having chosen nursing as her profession, she was graduated from the White Haven School of Nursing, White Haven, Pa. The latter has since become a part of the Jefferson Medical College Hospital, Philadelphia, Pa.

In 1932, she became assistant superintendent of nurses and in 1934, superintendent of nurses at the Lakeland Tuberculosis Hospital, Blackwood, N. J. She served in this position until her marriage to Dr. Thomas H. McGlade. They have one daughter, Patricia.

Mrs. McGlade is actively interested in community affairs. At the present time she is secretary of the Collingswood Junior High P.T.A., a Red Cross First Aid Instructress and Leader of a Girl Scout Troop. She was formerly Health Chairman, a member of the Y-Teen Committee, Y.W.C.A. and secretary-treasurer of the White Haven Alumnae Association. In 1949 she became president of the Woman's Club of Audubon, N.J., and is a member of the Ex-President's Club of First District N. J. Federation of Woman's Clubs. She is a member of the Jefferson Hospital Nurses' Alumnae Association.

In Auxiliary work, Mrs. McGlade has served her county as chairman of Public Relations, Press and Publicity, Program, Corresponding Secretary and President. In the State Auxiliary, she has been chairman of Public Relations, Press and Publicity, and a Director.

1951-1952 OFFICERS OF THE WOMAN'S AUXILIARY

President—
Mrs. Thomas H. McGlade, West Collingswood

President-Elect—
Mrs. Edward H. Dyer, Atlantic City

First Vice-President—
Mrs. Franke Forte, Newark

Second Vice-President—
Mrs. Paul E. Rauschenbach, Paterson

Treasurer—
Mrs. Asher Yaguda, Newark

Recording Secretary—
Mrs. Bertram J. S. Sauerbrunn, Elizabeth

Corresponding Secretary—
Mrs. George A. Corio, Trenton

Directors 1951-1954—
Mrs. D. Leo Haggerty, Trenton
Mrs. Samuel H. Jessurun, Newark

To fill an unexpired term—
Mrs. J. S. D. Eisenhower, Jr., Wildwood

AUXILIARY REPORTS

Atlantic County
Mrs. Samuel L. Winn,
Chairman, Press and Publicity

The last of the regular meetings of the *Woman's Auxiliary to the Medical Society of Atlantic County* was held in the Traymore Hotel, April 13, 1951, at 8:45 p. m.

The opening feature of the program was the

"Pattern of Survival" film shown by Mr. Joseph Hackney. Prior to the showing Mr. Hackney gave a synoptical prelude relative to the contents of the film. Mrs. Herbert Axilrod, chairman of Community Health arranged for this program.

Mrs. Clarence Whims, President, presided at the business meeting which followed. She stressed the Auxiliary taking serious measures in cooperating with the Red Cross first aid classes.

Volunteers were solicited to distribute 200 posters on nurse recruitment. They will be placed in physicians' offices throughout the county.

Mrs. L. M. Walker, chairman of the special committee in charge of the essay contest gave a very interesting report. Five judges have been appointed by this committee and all have graciously accepted to select the three best essays on "Why I Want to Become a Nurse".

Mrs. Louis Rosenberg, chairman of the Nominating Committee read the slate for the coming year.

Bergen County

Mrs. Winton Johnson,
Chairman, Press and Publicity

A luncheon meeting of the *Woman's Auxiliary to the Bergen County Medical Society* was held at Gene Boyle's Restaurant in Clifton on April 10, 1951. After the luncheon, Mrs. Edward Sexton, President, conducted a business meeting. Monthly reports were given, and an account of the outstanding success of the Benefit Bridge and Fashion Show was given by Mrs. Rudolph Schretzmann.

Mrs. Matthew Feldman, of West Englewood, Membership Chairman, reported the very gratifying increase in active membership from 79 members at the outset of the season, to 139 members at this time. Mrs. Walter Modrys, treasurer, gave her report of the sound status of the treasury. Mrs. Carl Rothschild, Rh Chairman, told us of the Auxiliary's part in providing volunteer clerical help for the Rh Negative Blood Donors' Club of Bergen County; over 400 donors are in the active file now, and during the year 62 donors were used, on calls at the five hospitals in this county and a few calls from New York hospitals treating Bergen County patients. Mrs. Thomas DeCecio, Literature Chairman, reported on the subscriptions to *Today's Health*.

The Program Chairman, Mrs. Stewart Alexander of Park Ridge, submitted the printed form of the Auxiliary's members' booklet which she had executed as her report. All meetings, names of members, pertinent Auxiliary information were available for each member in this excellent folder throughout the year. The program had brought distinguished speakers in the fields of public health, legislation, and social welfare to the meetings. Mrs. George Hoffman of Leonia was commended for her service as Hospitality Chairman for the past year.

The report of the Historian, Mrs. Samuel Alexander of Park Ridge, was read.

Mrs. Edward Sexton delivered her Annual Report of the President with many words of praise for the splendid cooperation of all her officers. Mrs. Sexton then installed the officers for the coming year, as follows: President: Mrs. Thomas Garrett, Hackensack; President-Elect: Mrs. Stewart Alexander, Park Ridge; First Vice-President: Mrs. Samuel Joseph, Teaneck; Second Vice-President: Mrs. Peter Bonanno, Englewood; Treasurer: Mrs. Walter Modrys, Cliffside Park; Recording Secretary: Mrs. Joseph Basralian, Hasbrouck Heights; Corresponding Secretary: Mrs. Luke Mulligan, Leonia.

Corsages were presented to these officers. To the retiring President, Mrs. Edward Sexton, and to former President, Mrs. Floyd Keir, the beautiful pins designed by the State Auxiliary for Past Presidents were awarded.

Essex County

Mrs. Stuart Z. Hawkes,
Chairman, Press and Publicity

The Academy of Medicine, Newark, was the setting for the Joint Meeting of the *Woman's Auxiliary to the Essex County Medical Society* and the Contemporary, Newark, on Monday, March 26, 1951.

Mrs. Jesse T. Glazier presided at the business meeting. The program started at 2:00 p. m. Dr. A. L. Van Horn, medical director of the Kate Macy Ladd Convalescent Home in Far Hills, N. J., addressed the group. Illustrating his talk with colored slides, Dr. Van Horn told of the beginning of the home and the part it plays in the community today. He also told of Mrs. Ladd and her philanthropic nature. Mrs. Otto Matheke and her Committee served tea after the meeting.

The Auxiliary is busy selling tickets for the Spring Concert of the Doctors' Chorus of the Society. The proceeds of the concert will go to the Essex County Service for the Chronically Ill.

The Chairmen of the Committee on Nurse-Scholarship have reported that 13 applications have been received from highly qualified girls from Essex County High Schools, to enter an Essex County Hospital. Mrs. Robert White and Mrs. George Scheller, with the aid of four educational directors of Schools of Nursing and Mrs. John Torppey, President-Elect, interviewed the applicants and have chosen five for further interviews.

The interest of our Auxiliary in Nurse-Scholarship has already stimulated other clubs to follow our example. This year, through Mrs. Jesse T. Glazier, the Suburban Woman's Club of Irvington has given a $400.00 Scholarship to the applicant from Irvington.

The Auxiliary is continuing its work at the City Hospital Blood Bank every Monday through Friday during the afternoon visiting hours. This month the Auxiliary is aiding the American Cancer Society in its campaign for funds. The Presbyterian Hospital, Newark, has aided us this month in our collection of drugs, medical samples and old surgical instruments by setting out baskets in the staff room. All the supplies gathered there and by the members will be sent to Korea.

BOOK REVIEWS

Surgical Forum: Proceedings of the Forum Sessions of the American College of Surgeons. October 1950. Pp. 665. Philadelphia and London, W. B. Saunders Company, 1951. ($10.00)

Surgeons who have attended any of the recent Clinical Congresses of the American College of Surgeons will readily agree with Dr. Wangensteen that "the Regents . . . . . did surgery a great service when they brought the Surgical Forum into being." Now one can add that the Surgical Forum Committee, by publishing this volume containing the proceedings of the most recent Forum sessions, has rendered a greater service to those surgeons unable to be at these meetings.

The subject will certainly appeal to the general surgeon, but there is also sufficient material to interest the chest surgeon and neurosurgeon as well. The authors, for the most part, may be unknown to the reader, but their reports are the results of careful research. Presentation of the articles is such as to insure profitable and enjoyable reading.

This volume contains much of the "best offerings of American Surgeons in surgical research for 1950", and it is hoped that the Committee will continue the publication of the proceedings of succeeding Forum Sessions.

Henry Reich, M.D.

Natural Childbirth; a Manual for Expectant Parents. By Frederick W. Goodrich, Jr., M.D. Pp. 176. New York, Prentice-Hall, Inc., 1950. ($2.95)

This book for expectant parents contains important information about pregnancy and childbirth. It is well-written; it gives wide room for what is called "natural childbirth" and explains very well indeed the principle of this old-new method. It would be wise if only the obstetrician who intends to handle the case according to those principles recommends this book. Otherwise the physician may have difficulty with his patient who —(because of the over-optimistic description and promise of a painless delivery)—may either force the physician into the well-publicized pattern of "natural childbirth" or may blame the latter if things do not turn out as the book says. The conscientious physician can never feel happy if methods and ways of treatment still controversial are publicized for the layman.

Ben Liegner, M.D.

Breast Deformities and Their Repair. By Jacques W. Maliniac, M.D. Pp. 193. New York, Grune and Stratton, 1950. ($10.00)

This good book, thoroughly covering a special field of reparative surgery, is written by a specialist for specialists. It was badly wanted since few plastic surgeons can acquire a vast enough experience in this one field. No one better than Dr. Maliniac could so splendidly fulfill this task. Every chapter is highly interesting. However, two of them outweigh the others by their importance as well as by their presentation. The fundamental anatomy and physiology of breast repair are convincingly developed. The author stresses the necessity of knowing the frequent variations in the vascular supply of the mammary gland. The danger of disregarding the lateral thoracic artery is stressed, as such neglect may cause necrosis of the skin and glandular flaps.

Another especially noteworthy chapter deals with methods of transposition. Mammaplasties have been divided into two categories: the older and short-lived technics and the long-tested contemporary ones. The former methods are briefly described. Of the latter, a critical evaluation is given of the technics of Lexer, Dufourmentel, Biesenberger, Aufricht, Burien, Bames, Gillies-McIndoe and Maliniac. The author's own procedures come last but not least. They are anatomically and physiologically more sound and safer than the others. They feature the use of dermal loops to anchor the transposed gland to its new location.

Excellent illustrations and photographs are found throughout the book. They leave no doubt on the cosmetic perfection attained in the author's cases. This book will become a classic in every surgeon's library.

Armand Genest, M.D.

Values and Personality: An Existential Psychology of Crisis. Werner Wolff, Ph.D. Pp. 239, New York, 1950. Grune and Stratton. ($4.75)

Fortunately there is a glossary at the end of this book. Otherwise it would be hard to figure out what the author means by "existential". As I get it—but I could be wrong—the author's thesis is this. There are only certain experiences which challenge our existence, causing us to step out of our customary patterns. Ordinary psycho-analysis dissolves the psychic process into its elements, and thus they cease to live. Existential psychology will correct this because it focuses on reactions as part of each patient's unique pattern. Man has a drive towards creation or completion. When this freedom of expression is impaired, psychoneurosis develops.

The technic is illustrated in two case reports which, together account for 152 of the book's 239 pages. The cases are spelled out in considerable detail including large verbatim gobs of the psychotherapeutic interviews. No part of the book describes the exact technic. The index, for example, contains no reference at all under "treatment", "technic" or "therapy". Thus this is not a text that can be used by the practitioner, though it does provide material that would make good discussion fodder at a meeting of philosophers.

Herbert Boehm, M.D.

Book Reviews continue on next page.

Surgery of the Shoulder. By A. F. De Palma, M.D. Philadelphia. Pp. 438. J. B. Lippincott Co., 1950. ($17.50)

Dr. De Palma, for long a member of The Medical Society of New Jersey, has written a valuable source book for orthopedists, radiologists, and others confronted with problems relating to the shoulder. His account of the anatomy, physiology, and pathology of the shoulder is lucid and includes most of the essential accumulated data on these subjects.

The unfolding story of progressive degenerative changes occurring, with advancing age, in the tissues about and within the scapulohumeral joint is beautifully demonstrated by photographs of gross anatomic material, photo-micrographs, roentgenograms, and line drawings. The presentation of this material and the interpretations and conclusions derived from it represent an original contribution of substantial clinical importance.

In discussing certain disabilities of the shoulder, some highly controversial concepts are advanced. This heightens interest in the book. Other chapters on calcaneous deposit in the rotator tendons, fractures, shoulder pain of neurogenic origin, obstetrical paralysis, bone tumors, and surgical approaches and procedures are well presented and add to completeness.

This book is recommended as an aid in understanding the shoulder.

Leonard Harris, M.D.

Principles of General Psychopathology. By Siegfried Fischer, M.D. Pp. 327. New York, 1950. Philosophical Library. ($4.75)

In his preface, the author says, with refreshing frankness, that "this book places little emphasis on factual evidence". The first part of the volume is a heavy-handed treatise on standard psychologic concepts—flavored by the author's fondness for such elegant words as pareldolas, Weitschweifigkeit, Ressentiment, Strukturanalyse and Antrieb. Not to mention a discussion of Gedankenlautwerden, and—what will be many a reader's favorite word: Gegenstandsbewusstsein. So much for Part I. Part II. is entitled "Comprehensible and Causal Connections" and it traces the psychopathology of the psychoneuroses in adequate if somewhat pedantic fashion. Part III. covers only seven pages and is given over to a definition of seven syndromes. Emotional syndromes constitute one class, hallucinations another, neurasthenia a third, and syndromes of delusion constitute still a fourth category in this curious catalogue. The last section of the book is a rapid review of personality types. The volume is manifestly not intended for physicians. Its exact target is beyond the ken of this reviewer.

William S. Schram, M.D.

Regional Orthopedic Surgery. By Paul C. Colonna, M.D. Pp. 760. Philadelphia, W. B. Saunders, 1950. ($11.50)

With proper accent on physical diagnosis and treatment, the author presents those clinical orthopedic conditions commonly found in each region of the body. Each chapter deals with one of the major areas and includes the subjects of soft tissue trauma and of fractures common to the region.

The first few chapters deal with physiology, physical examination and pathology. They lay a firm foundation for the subjects of the succeeding chapters.

The author makes good use of well-chosen photographs, drawings and x-rays in generously illustrating his subject matter. This is exemplified in the drawings which portray the various muscle function tests.

The final chapter, written by Dr. George M. Piersol, is a short treatise on physical medicine, a specialty closely linked to orthopedic surgery.

This work incorporates the comprehensive field of orthopedic surgery into a textbook of moderate size and gives each subject the essential coverage in sound present-day teaching.

Daniel E. Kavanaugh, M.D.

The Audiology Clinic; a Manual for Planning a Clinic for the Rehabilitation of the Acoustically Handicapped. By Moe Bergman. Pp. 107. Acta Oto-laryngolica. Supplementum 89, 1950. (Obtainable from Audiology Foundation, 1104 S. Wabash Avenue, Chicago 5, Ill.) ($1.00)

Toward the end of World War II a new branch of otology came into being. This was called audiology, and is defined by Canfield as "the science of hearing . . . and considers everything that can be of aid or detriment to life from sound which can or should be heard". To implement audiology, clinics have been established in many parts of the country. In this manual the author offers an extensive description of the Audiology Clinic in New York, one of the greatest and most modern in plant and equipment. The primary concern of these centers and the first function of an audiology program is a social one: the re-establishment of "communicative effectiveness" of persons with impaired hearing.

Audiologists should attempt only to determine the basic architectural requirements peculiar to their clinic plans and needs. The final construction blueprints should be prepared by an architect competent in acoustics.

Dr. Bergman supplies a list of required items which an audiology clinic needs with cost estimates. He, likewise, prepares a list of staff personnel necesary for the operation of an ideal unit. At least 76 units in this country are well on the way toward providing a well-rounded program for proper evaluation of auditory function and instruction designed to meet communicative needs. B.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV June, 1951 No. 6

DIAGNOSIS OF PULMONARY LESIONS DISCOVERED BY MASS ROENTGENOGRAPHIC SURVEY

PART II

Dumont Clark, M.D., Carl W. Tempel, M.D., and Kenneth D. A. Allen, M.D., The Journal of the American Medical Association, July 15, 1950.

Tuberculosis. A definite diagnosis of tuberculosis is not made clinically until the tubercle bacillus is found or the lesion is seen under the microscope. If the physician feels certain of the diagnosis without being able to find the tubercle bacillus, a tentative diagnosis is made. Since treatment of tuberculosis takes a long time, a positive diagnosis is most essential. Serofibrinous pleurisy with effusion should be considered tuberculous in origin. If lesions persist, atypical or virus pneumonia can be eliminated. Carcinoma, coccidioidomycosis, bronchiectasis, chronic lung abscess, bullous emphysema or cystic disease may involve the upper lobe of either lung and be confused with tuberculosis. An expert in pulmonary diseases should be consulted when a definite diagnosis cannot be made. All pulmonary lesions should be considered tuberculous until proved otherwise. A healed, usually calcified, primary tuberculous lesion in the lung, called a "Ghon" focus, is seldom serious, yet the assumption that any small pulmonary density in the roentgenogram can be viewed with complacency is erroneous. It is important to emphasize that most patients with early minimal tuberculosis are entirely symptom free, and yet the lesions are active and potentially progressive. Often they are the forerunners of advanced and destructive tuberculosis.

Carcinoma. Active tuberculosis is found at all ages, but cancer is a disease largely of middle or old age. The suspicion of tuberculosis in chronic pulmonary lesions should not retard the diagnosis of carcinoma. Cytologic study, by experts, gives a quick and accurate diagnosis in 80 per cent or more of cases of bronchogenic carcinoma. If sputum is lacking, early bronchoscopy to obtain bronchial secretions and a biopsy specimen, if necessary, are indicated. Should these fail to establish a diagnosis in a person over 30 years of age, exploratory thoracotomy should be considered. The only worthwhile treatment of bronchogenic carcinoma is pneumonectomy. Palliation can be obtained in inoperable cases by adequate roentgen therapy.

Bronchiectasis. A history of repeated chest colds frequently complicated by pneumonia often with a persistent cough and hemoptysis suggests bronchiectasis. If no tubercle bacilli are found in the sputum, bronchoscopic examination and a bronchogram should be made. It may be difficult to differentiate bronchiectasis from chronic cystic disease.

Bullous Emphysema and Cystic Disease, Bullous emphysema and cystic disease (emphysematous bleb, pneumatocele, peripheral pulmonary cyst) exist either as a solitary large bulla or multiple smaller bullae which can be confused with ordinary pneumonia or, as the pneumonia subsides, with tuberculosis. The rupture of a single small surface bulla may cause spontaneous pneumothorax in an otherwise normal lung. Pulmonary cysts vary greatly in size and number. One that contains air stimulates a tuberculous cavity, or if filled wholly or partly with fluid, it may be confused with a chronic lung abscess, tuberculosis or encapsulated empyema. A cyst

that refills with fluid after aspiration suggests the diagnosis.

Pneumoconiosis. Many industrial inhalants produce changes in the lungs detectable on the roentgenogram among which the most important is silica. In diagnosis, a history of exposure is the essential feature. The roentgenographic appearance of silicosis is more or less definite, although it must be differentiated from miliary tuberculosis, metastatic carcinoma which has spread through the pulmonary lymphatics, the fungus infections histoplasmosis and siderosis. The tubercle bacillus complicates most cases of silicosis. Roentgenographic signs of berylliosis, a newcomer among industrial inhalant diseases, are not as yet fully established.

Atypical Pneumonia. A few persons have atypical or virus pneumonia without acute symptoms. The roentgenographic appearance may then be confused with that of tuberculosis but frequent serial roentgenograms will help to establish the differential diagnosis. The presence of cold agglutinins is not specific but suggests the diagnosis.

Fungus Diseases. A person who has never been in the southwest portion of the United States will not have coccidioidomycosis. Histoplasmosis is most prevalent in a region extending from Kansas City, Kan., to the Atlantic Coast. A repeatedly negative reaction to a skin test with coccidioidin or histoplasmin rules out the respective disease and a positive reaction with a negative tuberculin reaction is strong presumptive evidence that the pulmonary lesion is coccidioidomycosis or histoplasmosis. The diagnosis may remain in doubt unless an exploratory thoracotomy seems indicated.

Chronic Suppurative Lung Diseases. Chronic lung abscess is usually a sequela of acute lung abscess and may be associated with chronic empyema. Physicial examination of the lung and bronchoscopic and bronchographic examination usually establishes the diagnosis. The treatment of chronic lung abscess is excision, as a rule by lobectomy. The treatment of chronic empyema is surgical.

Nonspecific Pneumonitis. The roentgenographic appearance of chronic nonspecific pneumonitis may be confused with that of tuberculosis and carcinoma. Surgical exploration should be done when this lesion is suspected in adults.

Atelectasis. This is usually an acute process which disappears in a few weeks.

Fibrosis and Emphysema. Diffuse bilateral pulmonary fibrosis is seen in older persons. Pulmonary emphysema can develop if the lung is chronically over-distended or if the pulmonary blood supply is diminished. The roentgenograph shows increased radiability and flattened hemidiaphragm.

Sarcoidosis. Sarcoidosis is a systemic disease frequently involving the lymph nodes in the thoracic cavity and the lungs. There may be few or no symptoms. Biopsy of a superficial or intrathoracic lymph node establishes the diagnosis. Sarcoidosis is confused with tuberculosis, lymphoma, carcinoma, coccidioidomycosis and active histoplasmosis.

Lymphomas. The diagnosis of Hodgkin's disease is made by biospy of an involved lymph node or exploratory thoracotomy.

Metastatic Neoplastic Disease. The usual roentgenographic appearance of a metastatic carcinoma in the chest is that of multiple small round or nodular lesions throughout the lung.

Leukemia and Collagen Diseases. Leukemia, polycythemia vera, and the collagen diseases—disseminated lupus and periarteritis nodosa—should be detected in the general examination.

Passive Congestion. Positive evidence of tuberculosis or carcinoma should be at hand when pulmonary circulatory congestive changes are possible.

Diaphragmatic Hernia. Diaphragmatic hernia should be suspected in any pulmonary lesion which is continuous with the diaphragm. A barium swallow, gastrointestinal roentgen study or, rarely, pneumoperitoneum will demonstrate the defect.

Benign Intrathoracic Tumors. Early benign tumors can be confused with other round lesions and should be removed. Any of them can undergo malignant degeneration.

SUPPLIED BY
NEW JERSEY TRUDEAU SOCIETY
the medical section of the
NEW JERSEY TUBERCULOSIS LEAGUE
15 East Kinney Street, Newark 2, New Jersey

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET
SITUATIONS, ETC.

$3.00 for 25 words or less: additional words 5c each
CASH MUST ACCOMPANY ORDER
Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

PHYSICIAN'S OFFICE TO LET IN NEWARK—Reasonable rent—excellent location—adjacent to dental office—bus passes door. For information call MI 3-1104.

FOR RENT—Beautifully furnished 4½ room office; part time each day. So. Munn and Central Aves., East Orange. Full time receptionist. Call SO 3-3727, 6 - 8 p. m.

FOR RENT OR SALE—Established for twenty years—physician's office and home. Contact Mrs. David Rubin, 401 First Ave., Asbury Park, N. J.

FOR RENT—Furnished office suite in Irvington, N. J. Ideally situated; excellent opportunity for general practitioner. All facilities furnished. Write Box M. c/o THE JOURNAL.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No Good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

HOUSE FOR SALE—Twelve large rooms, 425 Park Avenue, Orange. Three baths; oil heat; 100 by 200 ft. lot; suitable for professional offices and living quarters. Orange 4-5659.

— ATTENTION —
DOCTORS AND NURSES

Suitable for convalescing or nursing home. To settle estate, owner will sell at sacrifice large modern home, perfect condition, oil heat, beautifully landscaped, 2 car garage, near beach in Atlantic County. Can be financed.

For appointment to inspect write to:
P. O. Box 684
Atlantic City, N. J.

FOR SALE—Deceased physician's EENT chair, solid walnut construction, genuine leather upholstery, used only 10 months. Will sacrifice for quick sale. Write Box S, c/o THE JOURNAL.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

PRESCRIPTION PHARMACISTS

TO THE MEMBERS OF

THE MEDICAL SOCIETY OF NEW JERSEY

Place	Name and Address	Telephone
AUDUBON	Tegeler's Drug Store, Ellis Bulk Prop., 315 Atlantic Ave.	Audubon 5-1037
BLOOMFIELD	Burgess Chemist, 56 Broad St.	BLoomfield 2-1006
BOUND BROOK	Lloyd's Drug Store, 305 East Main St.	Bound Brook 9-0150
MONTCLAIR	L. V. Staehle, Pharm., So. Fullerton Av. & The Crescent	MOntclair 2-2014
NEWARK	Schwartz Drug Stores, Bloomfield, E. Orange, Bradley Beach	MA 2-4714
NEWARK	V. Del Plato, 99 New St.	MArket 2-9094
NEWARK	Marquier's Pharmacy, Sanford & So. Orange Aves.	ESsex 3-7721
NEW BRUNSWICK	Hoagland's Drug Store, 365 George St.	New Brunswick 49
RAHWAY	Kirstein's Pharmacy, 74 East Cherry St.	Rahway 7-0235
SOUTH ORANGE	Taft's Pharmacy, 2 South Orange Ave.	SOuth Orange 2-0063
SPARTA	Wm. J. McNulty, Pharmacist, Main St.	Lake Mohawk 3111
WEST NEW YORK	The Owl Pharmacy, 6611 Bergenline Ave.	UNion 5-0384

CHANGE OF ADDRESS

In the event of a change of address or failure to receive THE JOURNAL regularly fill out this coupon and mail at once to

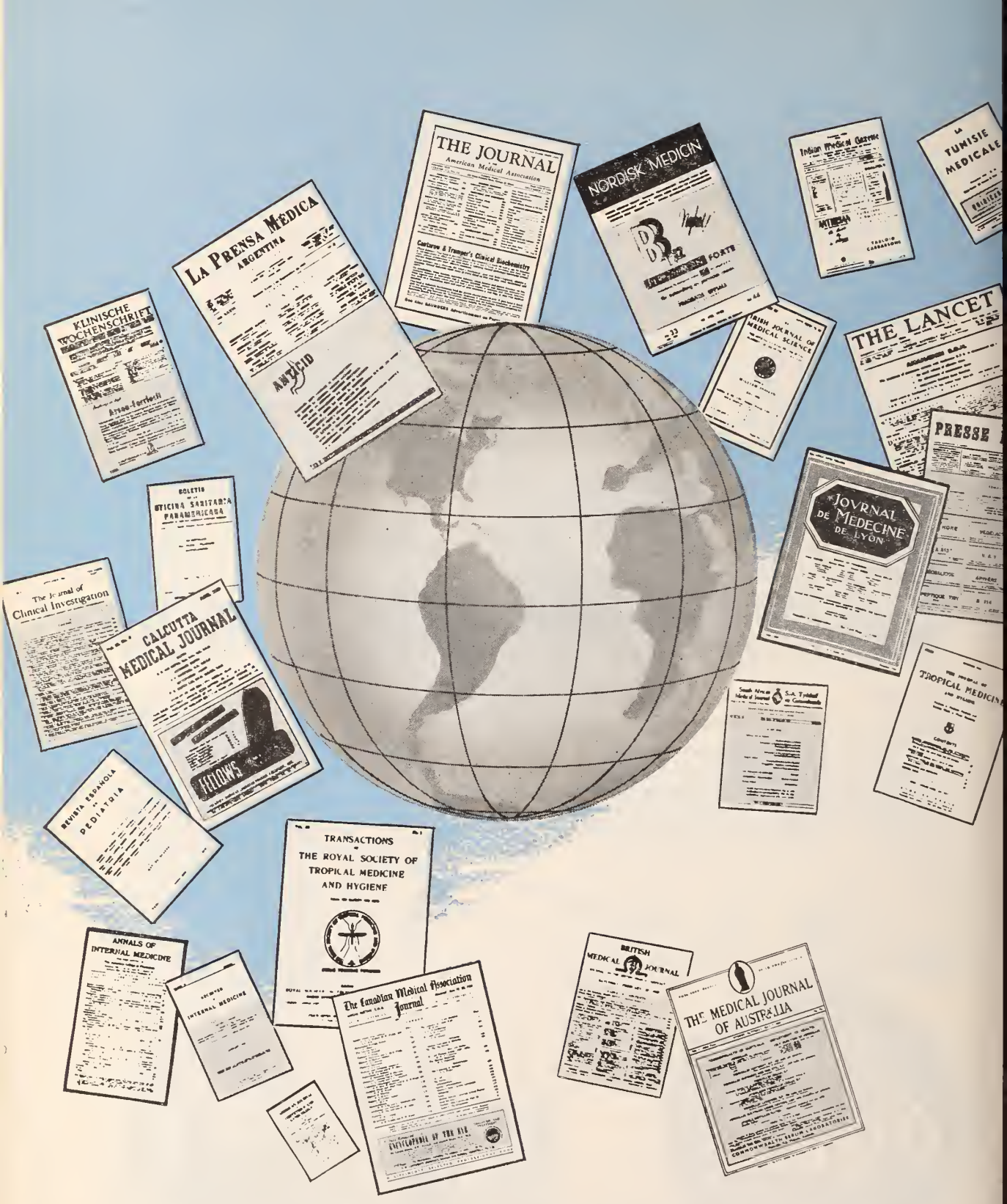
THE MEDICAL SOCIETY OF NEW JERSEY, 315 W. State St., Trenton 8, N. J.

Change my address on mailing list

From .....

To .....

Date ..... *Signed* ..... M.D.


THE JOURNAL
American Medical Association
NORDISK MEDICIN
LA PRENSA MÉDICA
ARGENTINA
ANTACID
KLINISCHE WOCHENSCHRIFT
THE LANCET
PRESSE
JOVRNAL DE MEDECINE DE LYON
CALCUTTA MEDICAL JOURNAL
The Journal of Clinical Investigation
TRANSACTIONS
THE ROYAL SOCIETY OF TROPICAL MEDICINE AND HYGIENE
ANNALS OF INTERNAL MEDICINE
The Canadian Medical Association Journal
BRITISH MEDICAL JOURNAL
THE MEDICAL JOURNAL OF AUSTRALIA

World-wide **USE**
World-wide **ACCLAIM**

Chloromycetin®

CHLOROMYCETIN's world-wide reputation stems from its ability to produce rapid, clinical response in a wide variety of infectious diseases — bacterial, viral and rickettsial. Numerous reports and the experience of daily practice confirm its

clinical efficacy • high tolerance
wide spectrum • high blood levels

CHLOROMYCETIN, a pure crystalline compound of definite molecular structure, is the only antibiotic produced on a practical scale by chemical synthesis. This unique feature means unvarying composition for dependable therapeutic results, freedom from extraneous material, and infrequent side effects.

CHLOROMYCETIN (Chloramphenicol, Parke-Davis) is supplied in a number of forms, including Kapseals® of 250 mg., and capsules of 50 mg.

COMPANY DETROIT 32, MICHIGAN

MEDICAMENTA VERA · P CO.

For new variety in flavor. . . . . for wider clinical usefulness

The PABLUM family now includes 4 precooked infant cereals

Under the one trusted name PABLUM®, physicians may now prescribe *four* precooked infant cereals.

The original Pablum, world's first precooked enriched cereal, is now PABLUM MIXED CEREAL. Pabena® is now PABLUM OATMEAL. And two new Pablum cereals are available—PABLUM BARLEY CEREAL and PABLUM RICE CEREAL.

A new manufacturing process brings out the full, rich flavor of all the Pablum cereals.

The new Pablum packages, designed for superior protection, safeguard flavor and freshness.

Only Pablum cereals have the convenient "Handy-Pour" spout that opens and closes with a flick of the finger.

Pablum Oatmeal, Barley and Rice cereals provide welcome flavor variety and find application when the physician prefers a single grain cereal.

If allergies are involved, Pablum Rice Cereal is especially valuable—not only for infants but for older patients.

Behind all four Pablum Cereals are the experience and reputation of Mead Johnson & Company, pioneers in nutritional research for almost half a century.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 7 JULY, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 301 to 350

Roster of Officers and Committee Chairmen, Advertising Page 3 A

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.

Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

VOLUME 48
NUMBER 7

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*..... Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, SIGURD W. JOHNSEN .....Passaic
President-Elect, HARROLD A. MURRAY .....Newark
First Vice-President, HENRY B. DECKER .....Camden
Second Vice-President, ELTON W. LANCE .....Rahway
Secretary, MARCUS H. GREIFINGER .....Newark
Treasurer, GEORGE J. YOUNG .....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953) .....Atlantic City
REUBEN L. SHARP, *Secretary* (1954) .....Camden
SIGURD W. JOHNSEN .....Passaic
HARROLD A. MURRAY .....Newark
HENRY B. DECKER .....Camden
ELTON W. LANCE .....Rahway
MARCUS H. GREIFINGER .....Newark
GEORGE J. YOUNG .....Morristown
ALDRICH C. CROWE .....Ocean City
WILLIAM F. COSTELLO (1953) .....Dover
WILLIAM C. WILENTZ (1953) .....Perth Amboy
JOSEPH G. COLEMAN (1953) .....Hamburg
L. SAMUEL SICA (1954) .....Trenton
DAVID W. GREEN (1954) .....Salem
J. LAWRENCE EVANS (1954) .....Woodcliff
ROYAL A. SCHAAF (1952) .....Newark
WILLIAM E. DODD (1952) ..... Beach Haven
C. BYRON BLAISDELL (1952) ..... Asbury Park

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1954)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....JACOB J. MANN, Perth Amboy (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1954)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1953) .....Hoboken
WILLIAM F. COSTELLO (1953) .....Dover
J. WALLACE HURFF (1952) .....Newark
DAVID B. ALLMAN (1952) .....Atlantic City
ELMER P. WEIGEL (1952) .....Plainfield
L. SAMUEL SICA (1952) .....Trenton

Alternates

ALBERT B. KUMP (1953) .....Bridgeton
WALTER F. PHELAN (1953) ..... Elizabeth
JOHN H. ROWLAND (1952) .....New Brunswick
ALDRICH C. CROWE (1952) .....Ocean City
HERSCHEL PETTIT (1952) .....Ocean City

COMMITTEES AND CHAIRMEN

Committee	*Chairman*
Finance and Budget	DAVID B. ALLMAN, Atlantic City
Medical Defense and Insurance	J. WALLACE HURFF, Newark
Publication	J. LAWRENCE EVANS, JR., Leonia
Scientific Work	
Honorary Membership	ROYAL A. SCHAAF, Newark
Woman's Auxiliary	LEWIS C. FRITTS, Somerville
Medical Education	FRANCIS M. CLARKE, New Brunswick
Annual Meeting	ASHER YAGUDA, Newark
Scientific Program	JOHANNES F. PESSEL, Trenton
Scientific Exhibit	WILLIAM W. HERSOHN, Margate City
Welfare	SAMUEL BLAUGRUND, Trenton
Legislation	C. BYRON BLAISDELL, Long Branch JOSEPH F. LONDRIGAN, *Executive Secretary*, Hoboken
Public Relations	JOSEPH E. MOTT, Paterson
Medical Practice	ALBERT B. KUMP, Bridgeton
Public Health	JOSEPH I. ECHIKSON, Newark
New Jersey Medical School	STUART Z. HAWKES, Newark
Adult Disease Control	NATHAN SWERN, Trenton
Cancer Control	WILLIAM O. WUESTER, Elizabeth
Cardio-Vascular Diseases	JEROME G. KAUFMAN, Newark
Chest Diseases	HARRY J. WHITE, Metuchen
Child Health	FREDERIC W. LATHROP, Plainfield
Conservation of Vision and Hearing	REINHOLD W. TERKUILE, Ridgewood
Maternal Welfare	JOHN D. PREECE, Trenton
Mental Hygiene	HARRISON F. ENGLISH, Trenton
Rehabilitation	H. EUGENE READING, Paterson
Rural Health	RALPH M. L. BUCHANAN, Phillipsburg
School Health	ELTON W. LANCE, Rahway
Venereal Disease Control	ROBERT L. MCKIERNAN, New Brunswick
Anesthesiology	EDWARD T. LAWLESS, Upper Montclair
General Practice	D. WARD SCANLAN, Atlantic City
Group Practice	CLARENCE B. WHIMS, Ventnor
Hospital Relationships	FLORENTINE M. HOFFMAN, New Brunswick
Laboratory Medicine	ASHER YAGUDA, Newark
Nursing	ANDREW C. RUOFF, Union City
Pharmaceutical Problems	JOHN L. VARRIANO, Jersey City
Physical Medicine	ELMER J. ELIAS, Trenton
Radiology	JOHN L. OLPP, Tenafly
Welfare Services	HAROLD C. COX, Hightstown
Workmen's Compensation and Industrial Health	RALPH A. YOUNG, Linden
Emergency Education Program	HENRY B. DECKER, Camden
Physician Resources	WILLIAM G. HERRMAN, Deal

Questions and Answers

about the new

Picker-Polaroid *one minute* radiograph

On March 7, 1951, before the Surgeon General and the staff of the Bethesda Naval Hospital, the Navy demonstrated the Land Process for making one-minute radiographs. The significance of this demonstration and a subsequent televised demonstration on the deck of the U.S.S. Salem was immediately sensed not only by the medical profession but by the press. *To answer the hundreds of inquiries which have been pouring in as a result, we are making this report to you:*

what is the process?

The one-minute, self-development principle of the Polaroid* Land Process, applied to radiography.

what does it do?

It produces a dry, finished radiograph, ready for use, one minute after the exposure is made, *without darkroom processing.*

how does it work?

1 You place the Polaroid x-ray packet in a special daylight-loading 10″ x 12″ Picker-Polaroid cassette, which fits any standard cassette tray.

2 Make a normal exposure in the usual way, with any x-ray machine.

3 Place the cassette in an automatic motor-driven processing box. Press a button . . .

4 A minute later, remove the finished print, dry and ready for use. There are no liquids present, no chemicals to handle.

what does the radiograph look like?

The image is a positive x-ray image on glossy white paper. It has excellent gradation and good density. You study it without using an illuminator.

is a darkroom needed?

No; you can load and process the radiograph in full daylight.

how will it be used?

While actual clinical experience has been limited, those who have participated during the past few years in the experimental adaptation of the process to x-ray (among them the radiological staff of the Massachusetts General Hospital in Boston) have predicted great usefulness in a variety of procedures: for fracture work, foreign body location, hip pinning and other work where speed is important. It should be useful in the many situations where darkroom facilities are not available or conveniently usable.

what will it cost?

Somewhat more than the direct cost of conventional x-ray film of similar size. When savings in processing, waiting and handling costs are considered, the actual cost difference may vanish.

when will it be available?

The entire output will go first to the Armed Services. It is hoped that by early 1952 production will have reached the point where civilian deliveries can start.

*® *Polaroid Corporation, Cambridge, Mass.*

Picker x-ray POLAROID

PICKER X-RAY CORPORATION • 300 Fourth Ave. • New York 10, N.Y.

NEWARK 2 *(Northern)* N. J., 972 Broad Street
LINCOLN PARK, N. J., Sewanois Avenue
MAPLEWOOD, N. J., 17 Van Ness Court
PHILADELPHIA 4 *(Southern)* PA., 103 S. 34 Street
MATAWAN, N. J., 54 Edgemere Drive
NUTLEY, N. J., 226 Hillside Avenue

IMPROVING RECTAL COMPETENCE IN DYSCHEZIA

When diminished tonus and contractibility have rendered the rectum incompetent, "there can be no doubt" that Cellothyl is "of great value."[1] Ease and frequency of bowel movements can be increased regardless of duration of dyschezia[1] — provided, of course, that patients who have suffered for years do not expect overnight correction. Steady improvement in the expulsive competence of the rectum will be noted with Cellothyl as the presence of adequate soft bulk and its gentle mechanical stimulation act to —

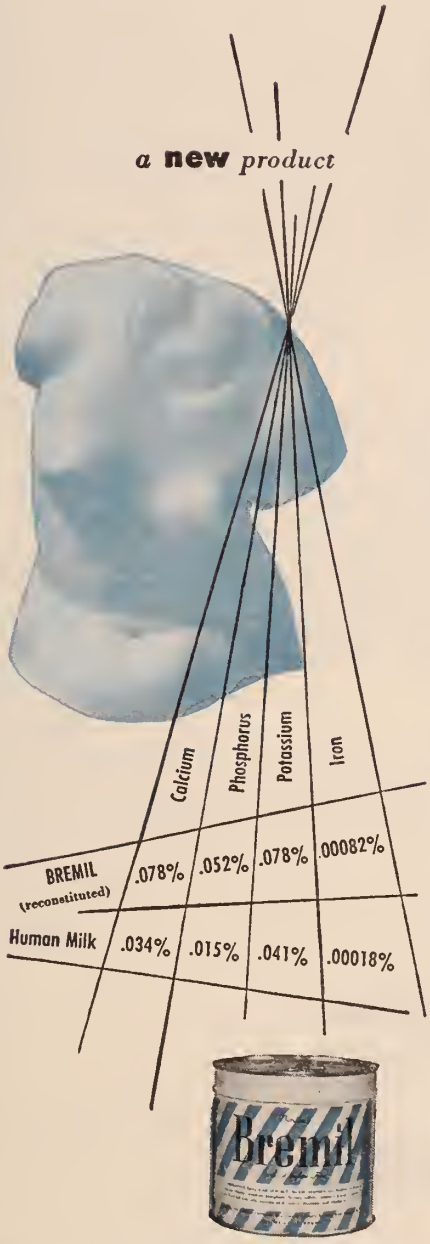
1. initiate the call to stool
2. encourage prompt, complete evacuation
3. provide soft, moist, easily passed stools
4. eliminate the need for straining
5. minimize pain or trauma to local lesions.

The stomach and small intestine, usually not involved in dyschezia, are unaffected by Cellothyl, which remains in a fluid state until it reaches the colon. Here it thickens to a smooth gel to provide bulk where bulk is needed. Normal, easily passed stools usually begin in 3 to 4 days. (Patients conditioned to purgation may be permitted a mild laxative, together with Cellothyl for several days, then Cellothyl continued alone.) As ease and frequency of defecation increase, dosage should be decreased to the minimum required for comfortable function.

1. Newey, J. A., and Goetzl, F. R.: Permanente Med. Bull. 7:67 (July) 1949.

a **new** *product*

conforming to the pattern of human milk...



BREMIL—newest product of Borden research—a significant advance in infant nutrition.

BREMIL is a completely modified milk in which nutritionally essential elements of cow's milk have been adjusted in order to supply the nutritional requirements of infants deprived of human milk.

In **BREMIL** the calcium-phosphorus ratio is adjusted to a guaranteed minimum of 1½ parts calcium to 1 part phosphorus. Gardner, Butler, et al., state: "Relative to human milk, cow's milk has a low Ca:P ratio..."[1] Nesbit states: "Tetany of the newborn is now recognized as a definite entity...and often accompanied by an increased phosphorus and lowered blood calcium."[2]

BREMIL is fortified with ascorbic acid as inadequate vitamin C often leads not only to scurvy but also to megaloblastic anemia.[3]

BREMIL has the fatty acid pattern of human milk.

BREMIL has the amino acid pattern of human milk.

BREMIL is easily digested as it forms a soft flocculent curd of small particle size comparable to human milk.

BREMIL supplies the same carbohydrate as human milk.

In **BREMIL** vitamins A and D, thiamine, riboflavin, niacin, and ascorbic acid have been *standardized at or above* the recommended daily allowances.[4]

BREMIL is available in drugstores in 1 lb. cans.

Complete information and a trial supply may be obtained upon request.

1. Gardner, L. I.; MacLachlan, E. A.; Pick, W.; Terry, M. L., and Butler, A. M.: *Pediatrics* 5:228, 1950.
2. Nesbit, H. T.: *Texas State J. M.* 38:551, 1943.
3. May, C. D., et al.: *Bull. Univ. Minnesota Hospitals* 21:208, 1950.
4. Recommended Daily Dietary Allowances, Rev. 1948, Food & Nutrition Board, National Research Council.

flexible, palatable, easy to prepare

Bremil® *powdered infant food*

Prescription Products Division

The **BORDEN** *Company* *350 Madison Avenue, New York 17, N. Y.*

hay fever...

Neo-Synephrine acts quickly to relieve the distress of hay fever, shrinks the engorged mucous membranes, checks hypersecretion, permits free breathing and promotes comfort.

It is notable for

- excellent tolerance
- relative freedom from compensatory congestion
- lack of appreciable interference with ciliary action.

Its effectiveness is undiminished by repeated use—insuring topical relief throughout the hay fever season.

NASAL USE	OPHTHALMIC USE
¼% solution (plain and aromatic), 1 oz. bottles; 1% solution, 1 oz. bottles; ½% water soluble jelly, ⅝ oz. tubes.	⅛% low surface tension, aqueous solution, isotonic with tears, ½ oz. bottles.

Neo-Synephrine®
HYDROCHLORIDE

Prompt and Prolonged HAY FEVER RELIEF

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

NEO-SYNEPHRINE, TRADEMARK REG. U. S. & CANADA
BRAND OF PHENYLEPHRINE

YOU, Doctor, are the best judge, so

BELIEVE IN YOURSELF!

With so many claims made in cigarette advertising, most doctors prefer to judge for themselves. So, Doctor, won't you make this simple test?

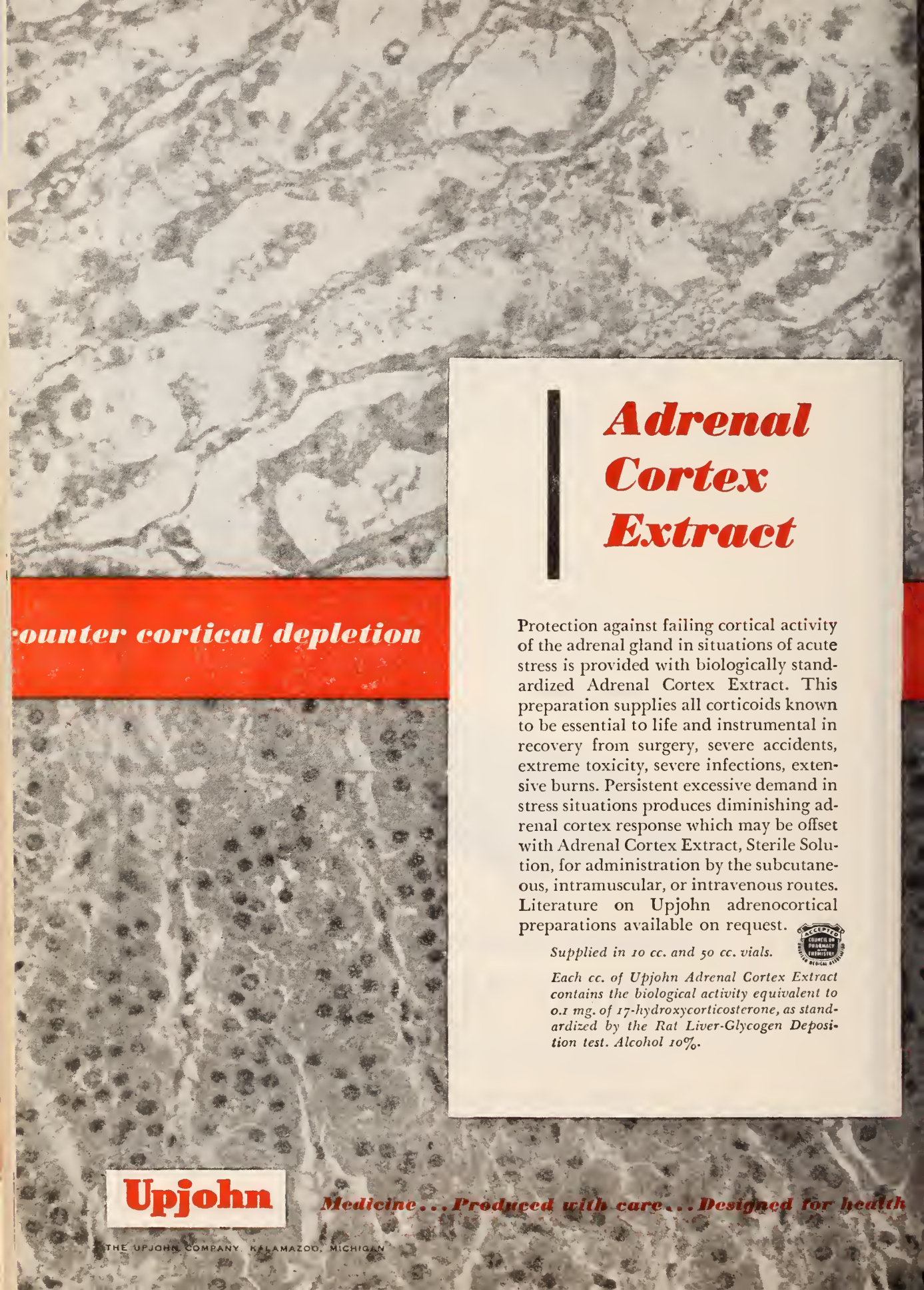
Take a PHILIP MORRIS— and *any* other cigarette. Then,

1. Light up either one. Take a puff—don't inhale—and s-l-o-w-l-y let the smoke come through your nose.
2. Now do exactly the same thing with the other cigarette.

Then, Doctor...BELIEVE IN YOURSELF!

PHILIP MORRIS

Philip Morris & Co. Ltd., Inc.
100 Park Avenue, New York 17, N. Y.



Adrenal Cortex Extract

ounter cortical depletion

Protection against failing cortical activity of the adrenal gland in situations of acute stress is provided with biologically standardized Adrenal Cortex Extract. This preparation supplies all corticoids known to be essential to life and instrumental in recovery from surgery, severe accidents, extreme toxicity, severe infections, extensive burns. Persistent excessive demand in stress situations produces diminishing adrenal cortex response which may be offset with Adrenal Cortex Extract, Sterile Solution, for administration by the subcutaneous, intramuscular, or intravenous routes. Literature on Upjohn adrenocortical preparations available on request.

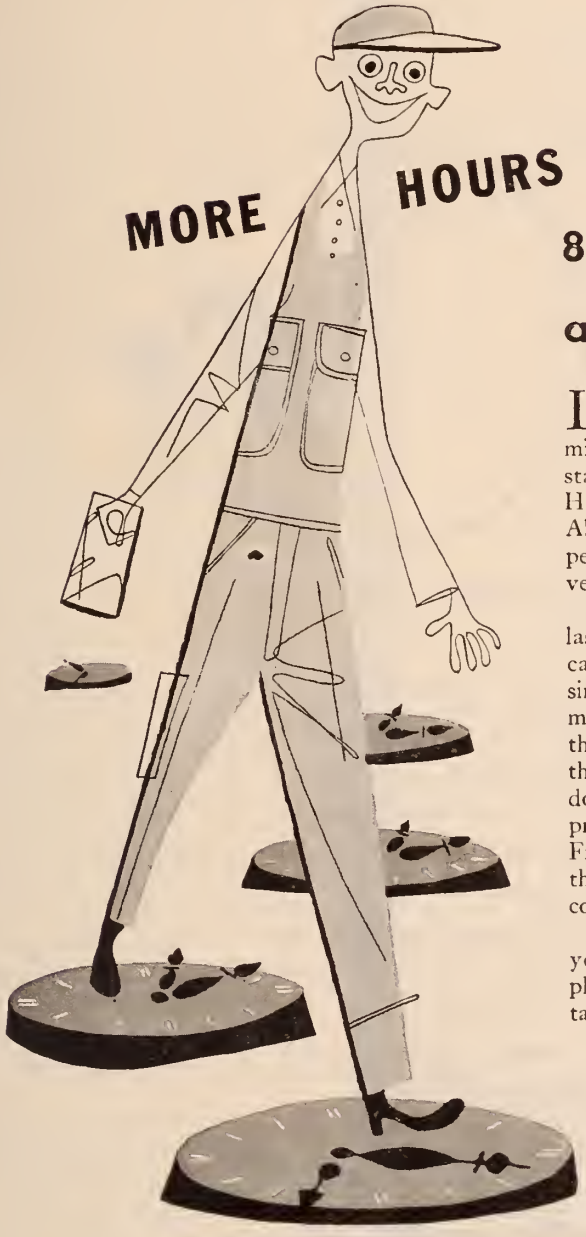
Supplied in 10 cc. and 50 cc. vials.

Each cc. of Upjohn Adrenal Cortex Extract contains the biological activity equivalent to 0.1 mg. of 17-hydroxycorticosterone, as standardized by the Rat Liver-Glycogen Deposition test. Alcohol 10%.

Upjohn

Medicine . . . Produced with care . . . Designed for health

THE UPJOHN COMPANY KALAMAZOO, MICHIGAN



MORE HOURS of Allergy Relief...

8 to 24 from a single dose

Look in the file of clinical reports on antihistaminics and it will be apparent that one is outstanding for prolonged action. It is DI-PARALENE Hydrochloride (Chlorcyclizine Hydrochloride, Abbott), a "different" antihistaminic with a piperazine side chain rather than one of the conventional types.

Numerous clinical reports attest to the longer lasting allergy relief with DI-PARALENE. In many cases relief up to 24 hours can be obtained from a single dose. Initially, DI-PARALENE should be administered in 50-mg. doses three times a day for the average adult, but in the majority of cases this dosage can later be reduced to one or two doses a day. One 50-mg. tablet at bedtime often provides symptomatic relief through the night. Frequently, no additional dosage is required until the next bedtime. Undesirable side-effects are comparatively few and mild.

This season try longer-acting DI-PARALENE in your allergy cases. Available at prescription pharmacies in 50-mg. and 25-mg. tablets in bottles of 100 and 500. Abbott

Specify Abbott's new long-acting antihistaminic

REFERENCES: Spielman, A. D. (1950), N. Y. St. J. Med., 50:2297, Oct. 1. Brown, E. A., et al. (1950), Ann. Allergy, 8:32, Jan.-Feb. Jenkins, C. M. (1950), J. Nat. Med. Assn., 42:293, Sept. Cullick, Louise, and Ogden, H. D. (1950), South. Med. J., 43:632, July. Ehrlich, N. J., and Kaplan, M. A. (1950), Ann Allergy, 8:682, Sept.-Oct.

IN THE SELECTION OF AN ANTIBIOTIC

distribution in body tissues and fluids may be a vital factor

Terramycin is rapidly absorbed from the gastrointestinal tract and widely distributed in body fluids and tissues. It appears to be concentrated in the hepatic system and excreted in the bile.
Terramycin rapidly traverses the placental membrane, and diffuses into the pleural fluid. Large amounts are excreted unchanged in active form in urine and feces, and oral intake markedly alters the intestinal flora.[1,2]

CRYSTALLINE

Terra

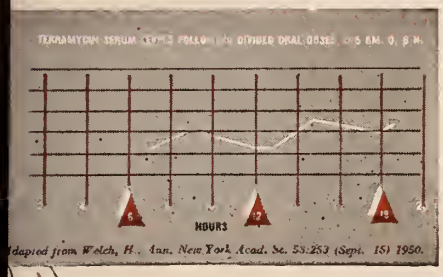
a broad antimicrobial spectrum widens the range of clinical efficacy

Favorable response, described in many instances as "excellent," "good," and "prompt" is recorded for bacteremias caused by pneumococci, staphylococci, and streptococci associated with pneumonia, meningitis, endocarditis, urinary infection, septic arthritis and pneumonitis.[2,4,5,6,7,8,9]
Acute brucellosis, and Bacteroides and E. coli bacteremias have responded favorably,[2,10,11] as have the commonly encountered rickettsioses.[12]

Antibiotic Division Pfizer

FOR USE IN SYSTEMIC INFECTIONS

therapeutic serum levels
rapidly achieved
and easily maintained
} *are a critical requirement*



Terramycin has relatively high stability in serum. Therapeutic levels are rapidly achieved and easily maintained by oral administration. Detectable amounts have appeared in the serum within one-half hour, and have been observed as long as twenty-four hours following a single 2 Gm. dose.[1] When divided doses (0.5 Gm. q. 6 h.) are given, effective serum concentrations are obtained, as shown in the accompanying chart.[3]

mycin

HYDROCHLORIDE

ACCEPTED Council on Pharmacy and Chemistry American Medical Association

the growing literature
continues to stress:

1. *The broad-spectrum activity of Terramycin* against organisms of the bacterial and rickettsial as well as certain protozoan groups.

2. *The promptness of response to Terramycin* in acute and chronic infections involving a wide range of systems, organs and tissues.

Crystalline Terramycin Hydrochloride is available as: Capsules, Elixir, Intravenous, Ophthalmic Ointment, Ophthalmic Solution.

1. Schoenbach, E. B.; Bryer, M. S., and Long, P. H.: Ann. New York Acad. Sc. *53*:245 (Sept. 15) 1950.
2. Herrell, W. E.; Heilman, F. R., and Wellman, W. E.: Ann. New York Acad. Sc. *53*:348 (Sept. 15) 1950.
3. Welch, H.: Ann. New York Acad. Sc. *53*:253 (Sept. 15) 1950.
4. Hubbard, W. N., Jr., and Tillet, W. S.: Ann. New York Acad. Sc. *53*:429 (Sept. 15) 1950.
5. Timpanelli, A.; Huebner, R. D., and McDermott, W.: Ann. New York Acad. Sc. *53*:440 (Sept. 15) 1950.
6. King, E. Q.; Lewis, C. N.; Welch, H.; Clark, E. A., Jr.; Johnson, J. B.; Lyons, J. B.; Scott, R. B., and Cornely, P. B.: J.A.M.A. *143*:1 (May 6) 1950.
7. Finland, M.; Gocke, T. M.; Jackson, G. G.; Womack, C. R., and Kass, E. H.: Ann. New York Acad. Sc. *53*:290 (Sept. 15) 1950.
8. Bauer, R. E.; Parker, R. T.; Hall, H. E.; Benson, J. F.; Joslin, B. S.; Hightower, J. A.; Snyder, M. J.; Venable, S. J., and Woodward, T. E.: Ann. New York Acad. Sc. *53*:395 (Sept. 15) 1950.
9. Blake, F. G.; Friou, G. J., and Wagner, R. R.: Yale J. Biol. and Med. *22*:495 (July) 1950.
10. Knight, V.: New York State J. Med. *50*:2173 (Sept. 15) 1950.
11. Herrell, W. E.; Heilman, F. R.; Wellman, W. E., and Bartholomew, L. A.: Proc. Staff Meet. Mayo Clin. *25*:183 (Apr. 12) 1950.
12. Keefer, C. S.: Ann. New York Acad. Sc. *53*:223 (Sept. 15) 1950.

CHAS. PFIZER & CO., INC., *Brooklyn 6, N.Y.*

when "eating for two" ...plenty of citrus fruits

Most obstetricians today insist that their mothers ingest plenty of vitamin C, particularly after the first trimester[1] (8 oz. citrus juice during pregnancy, 12 oz. while lactating).[6] When an adequate nutritional regimen (with particular reference to vitamin C) is followed throughout pregnancy, toxemia is reduced[7]—more babies are born normally and with a higher birth weight[3,4]—premature and still births are fewer[3,4]—and both maternal and infant health are improved postpartum.[2] Most mothers enjoy the flavor of fresh Florida citrus fruits (so rich in vitamin C and containing other nutrients*), as well as the energy pick-up provided by their easily assimilable fruit sugars.[5]

**Citrus fruits—among the richest known sources of vitamin C—also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.*

FLORIDA CITRUS COMMISSION
LAKELAND, FLORIDA

References:

1. Burke, B. S. and Stuart, H. C.: J.A.M.A., 137:119, 1948. **2.** Burke, B. S. et al.: Am. J. Obst. & Gynec., 46:38, 1943. **3.** Burke, B. S. et al.: J. Nutrition, 26:569, 1943. **4.** Javert, C. T. and Finn, W. F.: Texas State J. Med., 46:745, 1950. **5.** McLester, J. S.: Nutrition and Diet in Health and Disease, Saunders, Phila., 4th ed., 1944. **6.** National Research Council: "Recommended Food and Nutrition Board, Daily Allowances for Specific Nutrients," Wash., D. C., 1948. **7.** People's League of Health: J. Lancet, 2:10, 1942.

FLORIDA
Oranges • Grapefruit
Tangerines

Beauty with brains

Your patients probably won't see beyond the sleek, blond mahogany and smooth styling of this modern beauty. But you'll appreciate the qualities hidden from view in the compact cabinet.

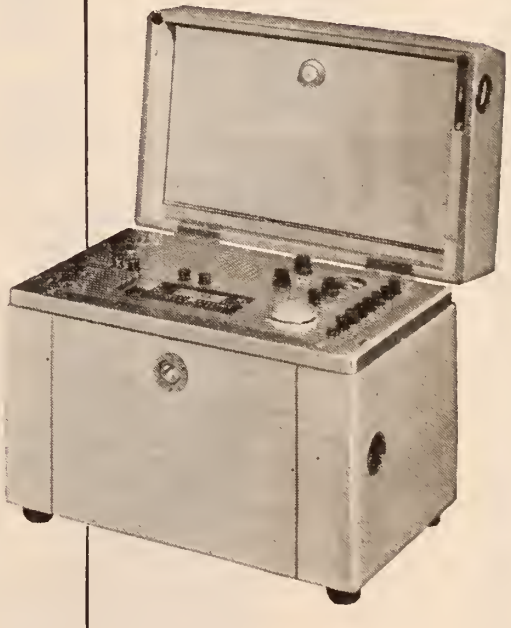
Consider its remarkable accuracy. In continuous recordings — one foot or fifty, there's never the slightest functional variation.

More than this, the Cardioscribe provides wide diagnostic range by facilitating the application of the following combinations of patient leads:

1, 2, 3 — Standard Extremity Leads
aVR, aVF, aVL — Augmented Unipolar Extremity Leads (Goldberger)
VR, VF, VL — Unipolar Extremity Leads (Wilson)
V (1 to 6 incl.) — Unipolar Chest Leads

Seven push-button controls make it possible to automatically select any of the above leads. More, there's no necessity for any change in the patient's electrodes other than that of properly positioning the exploratory electrode when unipolar extremity leads or unipolar chest leads are employed.

See your GE x-ray representative for a demonstration, or write



GENERAL ELECTRIC

Direct Factory Branches:

NEWARK — 10 Third Street **PHILADELPHIA — 1624 Hunting Park Avenue**

MEAT in the Dietary Treatment of Ulcerative Colitis...

Of utmost importance in treating ulcerative colitis is the support of the nutritional state of the patient with a diet providing generous amounts of protein, vitamins, minerals and calories but giving a minimum of intestinal residue.[1,2] Studies have shown that the most urgent nutritional need is for protein.[3] Other investigations have disclosed that patients with colitis display abnormally low serum levels for almost every vitamin.[4] Since most of these patients have anorexia, tempting food is essential for stimulating the appetite.

In particular, meat offers distinct advantages in maintaining the nutritional status and vigor of the colitis patient. Meat furnishes an abundance of protein, B complex vitamins and iron. Its protein contains all the indispensable amino acids in biologic proportions for growth and repair of tissues. Its B vitamins include thiamine, riboflavin, pyridoxine, niacin, and the recently discovered B_{12}. Being almost completely digestible, meat yields negligible intestinal residues which are non-irritating and non-stimulating to the intestinal musculature.

Another feature of meat in the diet of the patient with ulcerative colitis is its appetite-stimulating value for overcoming anorexia and promoting the digestive processes. In a widely used low-residue colitis diet,[2] providing from 60 to 80 Gm. of protein, 120 Gm. of meat and 10 Gm. of crisp bacon are included.

---

1. Mann, G. V., and Stare, F. J.: Nutritional Needs in Illness and Disease, J.A.M.A. *142*:409 (Feb. 11) 1950.

2. Barborka, C. J.: Treatment by Diet, ed. 5, Philadelphia, J. B. Lippincott Company, 1948, pp. 538-547.

3. Welsh, C. B.; Adams, M., and Wakefield, E. G.: Metabolic Studies on Chronic Ulcerative Colitis, J. Clin. Investigation *16*:161, 1937.

4. Bercovitz, Z., and Page, R. C.: Metabolic and Vitamin Studies in Chronic Ulcerative Colitis, Ann. Int. Med. *20*:239 and 254, 1944. Mackie, T. T.; Eddy, W. H., and Mills, M. A.: Vitamin Deficiencies in Gastro-Intestinal Disease, Ann. Int. Med. *14*:28, 1940.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

American Meat Institute

Main Office, Chicago...Members Throughout the United States

predictable control of hay fever

Chlor-*Trimeton* Maleate, milligram for milligram the most potent antihistamine available, allows the physician to predict a definitive and favorable result in symptomatic control of hay fever. Often successful when others fail, and producing few and minimal side effects, Chlor-*Trimeton* Maleate is a drug of choice for antihistamine therapy.

Chlor-*Trimeton*

maleate tablets

(brand of chlorprophenpyridamine maleate)

Chlor-*Trimeton* Maleate is available in 4 mg. tablets.

*T.M.

Schering CORPORATION • BLOOMFIELD, N. J.

Chlor-Trimeton

SCHERING

VOLUME 48
NUMBER 7

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 563

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month.

VOL. 48, NO. 7 JULY, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

THIS IS YOUR JOURNAL

Elsewhere in this issue,* we publish an analysis of the questionnaire sent to the members in May, dealing with the content and form of this JOURNAL. The relatively large ratio of returns is a heart-warming sign of member interest. Also gratifying were the many votes for continuing our present policies. Most of the suggestions were highly constructive and every effort will be made to put them into operation as soon as possible.

A state medical periodical represents a peculiar problem in medical journalism. It is easy enough, in a state like ours, to obtain a large inventory of papers by top notch professors. Located as we are between the huge medical centers of Philadelphia and New York, our county societies more often than not, solicit speakers from the medical schools in those cities. In any year, about 75 papers are read at county meetings within New Jersey by eminent specialists from outside the state. When we add the 30 or so papers presented by distinguished speakers at our own Annual Meeting, we have a reservoir of over a hundred high-grade articles a year to choose from. It is, therefore, no trick at all, to set up our JOURNAL so that it is crammed to the covers with papers by famous American medical names. However, the Publication Committee has consistently rejected this policy, and the Trustees have repeatedly agreed with the Committee. The reason is this. An eminent professor from outside the state can find many vehicles for his articles. But the New Jersey practitioner, working in a state without a medical school, finds it much harder to locate a hospitable scientific periodical. Consequently, we have a duty to furnish an outlet for the work, research and thinking of our New Jersey doctors; an outlet which they would

*Page 335, this JOURNAL.

never have were it not for THE JOURNAL. This leads inevitably and, we think, properly, to a policy of "favoring" New Jersey authors.

This policy, in turn, moulds the character of the "Original Articles" section of THE JOURNAL. It means, for one thing, relatively few "basic science", theoretical or research papers, because most basic science work emanates from the laboratories of medical schools. And the latter is something we just don't have in this populous and prosperous state. In the questionnaire, 424 voted 'yes' and 215 'no' to the query: "do you want more basic scientific and research papers even if it means calling on many out-of-state authors". This poses a dilemma. Shall we abandon our policy of favoring New Jersey authors in order to obtain more reports of experimental, research and basic science projects? Our members are apparently somewhat confused about this themselves, since the same questionnaire showed an even greater majority (675 to 59) in favor of "more articles dealing with treatment and practical clinical facts".

However it works out, one fact remains. THE JOURNAL of The Medical Society of New Jersey is very much *your* journal. It can be solemn or streamlined, oriented to research or oriented to clinical practice, filled with news or gossip, or devoted largely to scientific material, just as you wish. We can develop it as an organizational house-organ, as a postgraduate educational medium, or as a sort of medical newspaper. In the last analysis it's your wishes that determine our content and our format. In subsequent issues we are going to analyze some of the suggestions written in on the questionnaire form.

Any member with a JOURNAL idea is welcome to forward it to the editorial office. We cannot promise always to adopt the idea forthwith. But we *can* promise to consider it seriously and to give you the reaction of both the Publication Committee and the editorial staff. If basic policy questions are posed, we shall ask the Trustees for instructions. As with most things in a democratic organization, you will get what you desire. We are here to serve you.

COMPULSORY HOSPITAL STAFF MEETINGS

In the noble name of high standards, more and more hospitals demand that all their doctors attend all staff meetings. The rules often now say: attend staff meetings, or else! Nominal reason is that such attendance is one way of compelling doctors to keep in step with the march of medicine. And there is a certain plausibility about this. Many staff meetings are valuable; new ideas are presented and discussed; the doctor's education is advanced.

One hesitates to throw sand in the gears of medical progress. However, candor compels one to suggest that several things may be wrong with this policy. Item, a compulsory attendant at a meeting is not going to learn much. Compulsion, as we doctors love to point out, is often ineffective and inefficient, not to say almost unAmerican. Item, practically every doctor plays hookey now and then, and thus the hospital administration can pull the rug out from under *any* member of the staff. Obviously the doctor who is scheduled for the skids is not always the poorest physician on the staff; nor is he always the one most popular with the hospital administrators. Item, our medical calendar is crowded to the eves with meetings. You can't go to all of them. Since there is no penalty for missing a county society meeting, you will miss that rather than risk disciplinary action by playing truant at a hospital session. All of which adds up to one reason for poor attendance at

county societies. Item, we aren't sold yet on the idea that the hospital is responsible for everybody's health. We still think, some of us, that doctors have responsibility for the practice of medicine and the protection of health. Yet the major forum for scientific sessions may soon be the hospital staff instead of the academy of medicine or county society. If this happens it will weaken county societies, and lend strength to this new idea that the hospital is the greater protector of health and the doctor is just somebody who works there.

So when a hospital makes staff meeting attendance compulsory, one is justified in wondering whether anything less noble than "high standards" is behind the order. If this is the only reason, the same result could be accomplished by giving "credit" to staff members who attend county society meetings. That would assure keeping in pace with progress and at the same time emphasize the doctor's (not the hospital's) duty to practice good medicine. And it would remove a tempting club from the hospital board's armamentarium.

Doctors often need hospitals and are justified in being respectful of these institutions. But a doctor without a hospital still makes better sense than a hospital without a doctor. And we can be respectful without being cringing.

THE PATIENT'S RESPONSIBILITY TO THE DOCTOR

Much has been written during the past few years about the doctor's responsibility to his patient—financial, legal, and personal. But little has been said of the patient's responsibiity to his physician. One example of this is the matter of "doctor's orders". Many patients fail to take their physicians' instructions seriously, not realizing that even minor deviations, (e.g., the salt-free diet for cardiacs) may completely thwart the therapeutic goal. Similarly, modern drugs are of such potency that self-guided variations in dose may defeat the purposes for which they are prescribed. The digitalis group exemplify this principle most prominently. In addition, timing of medication (as with insulin for instance) may be of paramount importance in achieving the best results.

Certain patients make a habit of changing physicians capriciously if the first fails to achieve an immediate therapeutic miracle. Such a patient does himself a great disservice, for were he to return to the first physician, he would be referred to the proper consultant for further examination and advice as to treatment. This is not to imply that a patient should never change his doctor; at all times the patient's free choice should be his jealously guarded prerogative. But in general, the patient will receive better management if he chooses a single guiding hand at the helm.

Another difficulty is the promiscuous acceptance of lay advice in health matters. Having chosen a physician to be his mentor in such affairs, the wise patient consults him about all questions concerning illness, its treatment, and prevention. Nowhere is this more important, and more abused, than in obstetrics, where—for obvious reasons, old wives' tales sound authoritative.

Finally, there are those patients who prefer to bypass the family physician, and seek out specialists on their own initiative. Such patients run a real risk of missing the best treatment for their illnesses, since one of the prime attributes of the family physician is the ability to analyze his patient's problems, and formulate a logical step-wise attack that will be sound from the aspects of time, finances, and medical effectiveness.

More widespread understanding by the patient of *his* responsibilities to his physician will result in a more effective, more economical, and happier patient-doctor relationship.

R.D.G.

SPECIAL ARTICLES

PRESIDENT'S INAUGURAL ADDRESS *

SIGURD W. JOHNSEN, M.D., Passaic, N. J.

We are gathered together for the one hundred and eighty-fifth annual meeting of The Medical Society of New Jersey, the oldest medical society in the United States. Once more we meet in a time of crisis—war again confronts us with its problems and uncertainties.

If I were to give a title to this talk, it would be "A Brief Look Back Over the Past Ten Years, and a Look Forward to the Coming Year". A young lady once asked Gabriel Heatter what he thought would be the most important developments in the next twenty-five years. He replied, "My dear, I wouldn't care to predict what will happen in the next twenty-five days". I agree with that observation. However, events as they are recorded are sometimes the best guide to the future. I would therefore like to call your attention to some of our past history.

In 1941, Dr. Watson B. Morris was completing a year of outstanding service as President of this Society. In his presidential address he said, "The success of any society, whether it be state or county, depends about ten per cent on its officers, and ninety per cent on its individual members, and that which has been accomplished during this past year has been due to the keen interest and loyal support of both, for which I feel very grateful. With this combined effort we have every reason to believe that the Medical Society, with all its splendid traditions of the past will continue to protect the interests of the membership as well as the welfare of our people." I can find no utterance more profound and meaningful for the year that faces us, than this, and it is my hope and expectation that at the end of this coming year, these words will be as true as they were ten years ago.

It was on January 1, 1941, that our Medical Service Administration was founded, as the result of long continued deliberations on the part of the Planning Committee under the chairmanship of Dr. Edward W. Sprague. We owe to him and his committee a great debt of gratitude for their tireless work. Then, further work was done by the Founding Committee, under the chairmanship of Dr. Elton W. Lance, which resulted in the granting of a charter by the state, and the organization of the Medical Service Administration. Later the Medical-Surgical Plan was formed to care for hospitalized patients and here we must pay tribute to our departed members to whom we owe so much, Dr. LeRoy A. Wilkes, Dr. Thomas K. Lewis and Dr. Norman M. Scott.

Today we find over half a million of our people in New Jersey protected against catastrophic illness by this voluntary health insurance plan, developed by our own Society. It is now in the capable hands of a Board of Trustees whose president is Dr. Royal A. Schaaf, and to them we are deeply grateful for their untiring efforts to expand and extend the usefulness of this voluntary organization.

During the year 1942 to 1943, Dr. Elias J. Marsh was president. It was during this year that the greatest threat to the continued existence of our system of private practice occurred, in the proposal to set up a compulsory health insurance scheme, introduced by the late Senator Wagner, later known as the Murray-Wagner-Dingell Bill. The first action taken by this society in opposition to compulsory Health Insurance, was the following resolution adopted by this House of Delegates, on June 7, 1939:

"The Medical Society of New Jersey, appreciating the need of improvement in methods of distribution of medical care and the cost thereof,

* Delivered before the House of Delegates at the Annual Meeting, May 15, 1951.

and having demonstrated its readiness to cooperate with any and all agencies, governmental or otherwise, to that end, wishes to be emphatically recorded as opposed to the Wagner National Health Act. It is the belief of this Society that this Act is frought with danger to the public welfare and has little chance of accomplishing the proposed results. This Society wishes to make available its facts and personnel to the distinguished Senator in an effort to draft an act that would have a more assured chance of succeeding."

The following excerpts from Dr. Marsh's presidential address, reveal that a great deal of sound thinking and adherence to American principles and ideals motivated this society in its actions. He said, "Government is the only social agency that claims and can command the allegiance of every member of the community; and second, that to it alone society has entrusted two powerful weapons (viz.) the taxing power and the police power. These powers many sincere and disinterested but doctrinaire philanthropists are quite willing to take over and control in the supposed or perhaps actual interest of their intended beneficiaries . . . . So let us answer the challenge, of our own free will and innate response, proceeding by trial and error, if need be, in the manner of true evolutionary progress, and not by the blue prints of bureaucratic reformers from without."

In accordance with these high ideals, and principles we carried on the fight against the proposal to set up a bureaucratic system of State Medicine, by passing the following resolution, which was first adopted by the Welfare Committee, then amended and adopted by the Board of Trustees, on June 27, 1943:

"Whereas, the Social Security Act Amendment of 1943, S.1161, commonly known as the Wagner Bill, was introduced in the Senate on June 3, 1943, and

"Whereas, Title IX of that Act as amended, dealing with 'Federal Medical, Hospitalization and Related Benefits' sets up a system of compulsory medical care, which in the judgment of The Medical Society of New Jersey would be detrimental to public health and welfare and would result in a lowered quality of medical care, and

"Whereas, this system will be destructive of the time-honored existing method of medical practice under which has been developed the highest standards of medical care and public health of any large country of the world, and

"Whereas, this bill has been introduced in the turmoil of war without consultation with the official representatives of health professions and related agencies, and

"Whereas, The Medical Society of New Jersey over a period of years has been and is making sincere and vigorous efforts to develop and operate plans for the distribution of such care with the hope of eventually being of help to the government and the medical profession in their joint effort to solve the problem of distribution of medical care, and

"Whereas, the Welfare Committee composed of representatives from all the county societies and charged under our By-Laws with the responsibility of dealing with matters affecting medical practice and legislation has, after study, recorded its disapproval of this measure;

"Therefore, Be It Resolved, that The Medical Society of New Jersey hereby expresses its disapproval and opposition to the above mentioned Title IX of the Social Security Act as amended, and

"Be It Further Resolved, that The Medical Society of New Jersey call upon the new Council on Medical Service and Public Relations, created by the American Medical Association, forthwith to undertake the formulation of a policy directed to the solution of the distribution of medical care, to which Council we offer our experience and support, and

"Be It Further Resolved, that copies of this resolution be forwarded to the American Medical Association and to the New Jersey Representatives in Congress."

All the efforts of our entire organization, the House of Delegates, the Board of Trustees, Welfare Committee, its subcommittees on Legislation, Medical Practice, Public Health, and Public Relations, with all their advisory committees—were now devoted to the defeat of this governmental proposal to socialize medicine. Our county societies set up comparable committees to cooperate in this tremendous struggle, and The Medical Society of New Jersey with all other state societies cooperating with the American Medical Association carried on the fight. At first we were alone, but soon other organizations passed resolutions condemning this un-American form of bureaucratic control, and now, with all America awake to the danger, and with the shocking revelations of the Fulbright and Kefauver Committee revealing corruption in high governmental places, we look forward to a successful conclusion to this long struggle.

Each succeeding administration has contributed its share of devotion and sacrificing effort in this cause. Time will not permit further reference to the many outstanding individuals in our society who have labored so

faithfully in waging this fight, except to pay tribute to one who literally gave his life to the fight against socialized medicine, our late departed Past-President, Dr. James F. Norton.

During the past year under the capable administration of Dr. Aldrich C. Crowe, the problems of war have again become prominent. Early in his administration the Korea affair broke out and we were called upon to set up machinery to deal with the physician manpower needs of the armed services. Under the chairmanship of Dr. William G. Herrman, and Dr. Andrew F. McBride, Jr., this state again took the lead in aiding our government to fill its physician needs in the various branches of the armed services. We were then called upon by Dr. Daniel Bergsma, State Commissioner of Health to help set up and plan for civilian defense; and here again our members responded. The civilian defense organization of New Jersey has served as a model for many other states.

This brief and incomplete look backwards, reveals the fact that a brilliant chapter in the history of The Medical Society of New Jersey has been written during these past ten years. While our society is indeed aged, it is far from decadent. We can take pride in our accomplishments and look forward to continued advances in the future.

However, all is not well—there have been weaknesses and deficiencies exposed, in our system of private practice. These we must face honestly, and apply the same kind of cooperative effort to correct.

The first of these is the complaint on the part of the public, that the patient with a grievance against a member of the Medical Society, has no way of obtaining an impartial hearing. This problem can now be dealt with by completing the reorganization of the Judicial Council, and approving the amendment to the Constitution which will put into operation the District Judicial Councils, and provide an agency for the impartial hearing of all grievances. The Judicial Council under the guidance of Dr. Vincent P. Butler, has set up what we confidently hope will be a thoroughly satisfactory solution for this problem.

Another matter of great concern to us, is the insistent demand that the high cost of hospital care be reduced. The first step in the solution of this problem is to restore the physician to his rightful place in the hospital structure. We are asking the subcommittee on Practice of Medicine to consider this, and offer specific suggestions. We have also requested the Welfare Committee and its subcommittees to submit concrete proposals whereby, all medical services will be eliminated from the hospital service contracts. These services should be covered by our Medical-Surgical Plan and not by Hospital Service contracts.

The practice of medicine by hospitals will be opposed by every method available to us. On the other hand, we must assume our share of responsibility in the financial problems of the hospital so that working together, these can be solved.

We have reached a point where specialization in many cases has become an absurdity, and we are now on the way to restore the general practitioner to his rightful place in both the hospitals and in private practice. The general practitioner is the backbone of this society and we rejoice to see that he is regaining the prestige and honor which he deserves.

In compliance with a request from The Medical Society of New Jersey, Governor Driscoll appointed "The New Jersey Medical College Commission"; which has now rendered its report. The Commission agrees that a medical school is needed very badly in New Jersey. It has also recommended "That the question of an appropriate bond issue providing for construction of a New Jersey State Medical School be submitted to the voters in November 1951". A special committee has been appointed to study ways to aid in the realization of this long cherished hope to see a Grade A medical school established in New Jersey. We shall do all in our power to bring about this very desirable project.

A problem which has brought tragedy and sorrow to many of our families is narcotic addiction among juveniles. This is a matter which demands our earnest consideration and resolution to solve. We have therefore re-

quested our Welfare Committee and subcommittees to study means of assisting our governmental agencies in stamping out this evil.

Closely related to this is the problem of abuse of barbiturates, and barbiturate addiction. Many persons may have been initiated into barbiturate addiction by a prescription from their attending physician. We shall have to study this problem and propose measures to prevent the tragic and widespread abuse of barbiturates.

It has been stated on good authority, that voluntary health agencies command the greatest part of contributions for charitable purposes. Some of these agencies exist for the benefit of their sponsors, and thereby injure and limit the effectiveness of those others which render great and genuine service to the public. We are therefore requesting our Welfare Committee to make a thorough re-evaluation of the voluntary health agencies with which we have cooperative relations, to see how their funds are spent and what proportion of their budgets are devoted to the purposes for which they claim to exist.

These are some of the problems which we will attempt to find solution for during the coming year.

In conclusion we might say, that the characteristic feature of our system of private practice of medicine is diversity. It includes the general practitioner, the specialist, the private hospital, the general hospital, the nurse, the technician, the pharmacist, and the voluntary health and welfare agency. It operates in an atmosphere of free enterprise, which permits the greatest degree of personal initiative and this in the past has resulted in the highest type of medical care which exists anywhere. We can therefore look forward with confidence to a future which promises to be continuation of a glorious past.

OUR DOCTORS' EMERGENCY SERVICE *

A REPORT AND SOME OBSERVATIONS . . . .

RICHARD I. NEVIN, Executive Officer, Trenton, N. J.

Probably the two traits most hostile to good public relations are stupidity and selfishness. The stupid individual does not perceive the necessity of his enjoying the esteem and cooperation of other people; the selfish individual literally "doesn't give a damn". Yet the fact remains that alone we can do very little. For the successful eventuation of all but the most subjective undertakings, the sympathetic reaction and participation of others are indispensable. None of us is really independent, except in the commendable determination to stand on his own feet—to live by his own strength. Success comes to those who are able to achieve with their fellows what might be called "a harmonious and salutary interdependence"—and that's just another way of describing cooperation or teamwork.

It seems to me, moreover, that the basic principle of public relations is no new invention or discovery of this fast-paced, self-esteeming age. It was articulated ages ago by One Who, speaking with the voice of eternal wisdom, counseled all men to "Do unto others as you would others do unto you", and, again, "Children, love one another". It's rather hard for sophisticates such as we to accept the appellation of "children". We fancy ourselves as so grown-up and so wise in the wisdom of worldly affairs. But the sad plight of our world today and the hapless confusion of many private lives uncompromisingly demonstrate that, by and large, we are but children—rather dull of vision and recalcitrant of virtue at that—or else we are a generation of dolts.

I indulge these observations not as a cynical

* Delivered at the Public Relations Meeting, The Medical Society of New Jersey, May 14, 1951.

asperity, but simply to point up the fact that public relations become a problem only for individuals and groups that have been or are remiss in their regard for the dignity and importance of their fellow men. Falsely considered, a program of public relations is a synthetic and frequently ungenuine endeavor to "kiss and make up" after a long series of incidents of injury or neglect. Properly considered, a program of public relations is the day by day deepening of respect and affection that a good man or a good organization achieves by simply and openly being its true and admirable self. As such it is no tinsel technic of allurement. It is, rather, a wholesome and a compelling way of life.

We of The Medical Society of New Jersey have of late established a more active public relations program. By doing so we have made tacit admission that the bonds of affection and regard between medical doctors and the public they serve are not as strong as they could and should be. In the light of my opening remarks, we must conclude that the fault must at least be partly ours. This circumstance we are eager to correct.

To anyone who ponders the matter even briefly, it must be apparent that if people are, with reason, disaffected toward organized medicine, it must be because the doctors themselves or the service which they render is, in some way, unsatisfactory. With reference to the first possibility—that the doctors themselves are unsatisfactory—we are striving to make every practitioner realize that every aspect of his conduct in dealing with his patients vitally affects the popular status of organized medicine in his community. I would say to every practicing physician: "Remember, to your patients *you* are organized medicine. In consequence, your patient will approve or disapprove of the prevailing mode of medical practice as the result of his reaction—in the words of a popular song—'to all the things you are'." The corrolary of this concept is "when better impressions of organized medicine prevail, you will have helped to create them". It is sobering to contemplate that the converse of the proposition is equally true.

Concerning the second possibility—that not the doctors personally but the service rendered may be unsatisfactory—there are at least three things to be taken into consideration:

(1) Service may be unsatisfactory because of the incompetence or indifference of the individual practitioner, or it may be construed as unsatisfactory because of the arbitrary and capricious attitude of a fault-finding patient. To deal with this contingency, we have established the mechanism of our grievance committees.

(2) Service may be unsatisfactory because it is too costly. We are striving to overcome this very substantial difficulty by means of wide-spread voluntary prepayment health insurance plans.

(3) Service may be unsatisfactory because it is not readily available. To meet this difficulty, we have been encouraging the establishment of a "Doctors' Emergency Service" in each of the counties of the state.

You will be happy to know that out of thirteen replies to a questionnaire sent to the chairmen of the Public Relations Committees of our twenty-one component societies, eleven county societies report a "Doctors' Emergency Service" as established and functioning. The over-all picture of this service is very encouraging, but there are several signs that it has not yet reached its maximum of efficiency in terms of better medical service or better public relations. Apparently local agencies such as hospitals and police departments are quite willing to cooperate in the development of this emergency service.

An analysis of the reports submitted discloses three phases of service concerning which we must be especially and thoughtfully careful.

(1) The 'Round-the-Clock' availability of doctors—If this system is to be successful and to endear and not estrange, there must be a doctor available—and readily available—for not just *most* calls, but for all calls. Fate is frequently perverse—as Fortune is fickle—and the one call not covered could well prove to be the one that terminates tragically, with front page publicity that undoes at a stroke all

the good so laboriously accomplished. It is, it seems to me, far better to have individual doctors down for specific assignments of days and hours rather than to have a long list of men, all of whom have indicated their willingness to accept calls, but each of whom, in just this one instance, thinks that he'll let George do it. A man *would* limit himself by signing up for a particular period of time, it is true, but he would also proportionately limit the possibility of irreparable disaster or fiasco.

(2) The cost to the patient—The charges of an emergency house call, reflected in the reports, range from $3.00 to $10.00. It seems to me that that wide spread leaves the service open to criticism and condemnation. In the nature of an emergency call, a person in need is calling for a doctor—anyone certified by the State Board of Medical Examiners and qualified to practice medicine will do. The average expectation is, I am sure, that a general practitioner — not a specialist — will come. The average expectation is, I am sure, that an average fee will be charged. I think it would be good public relations—and a form of medical life insurance as well—to arrive at a fee that would be fair to both the doctor and the patient. $5.00 would be about median, and, I think, equitable. Many people who send in an emergency call for a doctor probably have no family physician because, for reasons of economy, they can't indulge themselves in the luxury of minor illnesses. When they're struck down they cry for help, but they probably have little leeway in their budget to pay liberally for that help when it is forthcoming. If the run-of-the-mill, economically-harassed worker were to draw a doctor who charged $10.00 for coming, $4.00 more for antibiotics administered, and then left a prescription that cost $2.00 to have made up, I am sure that upon his recovery, if he did survive, he would enthusiastically enlist under the banner of Oscar Ewing, ... and that, I submit, is not the end for which the "Doctors' Emergency Service" has been created.

(3) The third point to which we should give particular consideration is the adequacy of the means by which we acquaint the public with the existence of the "Doctors' Emergency Service". Excellent use of newspaper advertisements and local radio station announcements has been reported. Information covering the existence of the service and the telephone numbers to be called has been given as a regular thing to hospitals, police stations, fire houses, and schools. I would further suggest that printed stickers be supplied by county medical societies and distributed to the public through doctors' offices and drug stores, and, with the permission of the telephone company, posted in a prominent place in all public phone booths and in all telephone directories available for the use of the general public. By a combination of all these means, we can ascertain that the public has full information of the availability of the service.

We can justifiably compliment ourselves on the establishment of this new and needed form of medical service. It is only beginning, but already it has done much good in alleviating distress and in bettering public relations for medicine in New Jersey. Though the good done is often unremarked and small evils are regularly greatly magnified, we should not be even slightly discouraged. We will yet make the public know every doctor as a friend—especially in need. Thus, in the true concept of public relations, as doctors and as citizens, we will improve and advance this and all other forms of medical service in our state, for the progress and preservation of free medical practice, for the good of our fellow citizens, and for the stability of our type of free society.

ORIGINAL ARTICLES

THE UROLOGIST LOOKS AT GENERAL PRACTICE *

E. Hess, M.D., R. B. Roth, M.D., and A. F. Kaminsky, M.D.,
Erie, Pennsylvania

There is no disease entity within the sphere of urology which does not have aspects of general medical concern. It is the province of the general practitioner to suspect or diagnose such conditions, and to recognize in them the need for a specialist's attention. Urologic care should never present the problem of the specialist *versus* the family doctor, but should always represent the efficiency of the team of family doctor plus specialist.

In recent years it has become popular to take the number of physicians in an area, divide it into the population, and draw some sort of a conclusion from the resulting figure in terms of adequacy of medical care. It is equally popular at the moment to quote the number of graduates from the medical schools and diploma mills of 1905, compare this with the number of graduates today, and draw dire conclusions on the state of the nation. Little attention is paid to the effectiveness of the doctor today, and no attention at all is paid to the complex medical teamwork which has evolved for the provision of efficient far-reaching medical care. Let us ask a few simple questions. Who saw more acutely ill patients in their homes? Three general practitioners plodding about the countryside with their horses and buggies in 1905, or one general practitioner with a good car in 1951? How many doctor hours did a case of pneumonia require in 1905, and how many in 1951? How many trips to a doctor's office did a case of gonorrhea require in 1905 and how many in 1951? How many cases of typhoid fever did the average general practitioner have to treat in 1905, and how many does he treat today? Does it require a statistician to prove that the doctor of today is vastly more efficient than the doctor of the past, even if reckoned only in terms of faster transportation, more accurate diagnostic methods, and better therapeutic agents?

It has become relatively easy to think of the surgical team functioning in a great hospital — the surgeon, the anesthetist, the assistants, the nurses, the pathologist, and so on through the roster. One does not think of those workers as being in competition with one another. They are a cooperative team. But perhaps we ought to pause to consider whether we are listing *all* members of the team. What about the family doctor? What about the practitioner whose judgment was initially responsible for sending that patient to the hospital, or for calling in the surgeon? Is he part of the team, or is he in competition with it? Surely, from the point of view of the patient, the family doctor is one of the most important members of the team. Surely, there is no possible element of competition. There can be, or should be, only the elements of assistance and support.

One way for the physician to keep his office full might be never to refer anything. Keep them coming back. And a good way to whisk oneself quickly out of the practice of medicine might be alternatively to refer anything that comes along—all nasopharyngitis to the laryngologist, all sprains to the orthopedist, all headaches to the neurologist, and all urologic problems to the urologist. Neither represents a desirable status of medical practice. The proper relationship is that in which the family doctor, confronted by a need for assistance in diagnosis and treatment, recognizes that need and obtains the required help. This teamwork further increases the efficiency of the family doctor. It gets his patient well with a minimum of delay.

* Read before the Annual Meeting of The Medical Society of New Jersey, May 15, 1951.

Unfortunately, this is not yet Utopia, and there is still room for improved cooperation and understanding between general practitioners and specialists. We can speak with authority only about general practitioners and urologists; and we recognize that there are still faults on both sides. We have found a number of our general medical colleagues reassuringly frank in telling us where we could improve relationships; and, with equally constructive intent, we point out some of the commoner errors in the handling of urologic problems by general practitioners.

Let us cite a few examples of a general practitioner's failure to recognize a simple urologic condition which he might easily have diagnosed and treated himself. One of our excellent local practitioners referred to us a well-to-do woman for study and treatment, with the following story. During the previous six months, he had hospitalized this patient on three occasions for treatment of what he called cystitis. She had had marked urinary frequency and burning. On no occasion had he examined her more than superficially. The hospital history and physical examination had been carried out solely by the intern. Treatment had consisted of chemotherapy, antibiotics, and bladder lavages administered by the nurses. After the third discharge from the hospital, all her symptoms had recurred, and at this point he sent her to us. We looked at her urethra. It was fiery red with everted mucosa. We calibrated it, and it was narrowed. In the office, we cocainized the urethra, dilated it fully with sounds, and cauterized it with silver nitrate. We then told her that if relief was not prompt we would have to admit her to our Clinic for a full study and evaluation, but that her problem seemed to be the simple and very common one called chronic granular urethritis, so frequently seen in parous females of middle age and beyond. We did not see her again for nine months. Then, one day, she appeared in our office with a bad head and chest cold, and asked us to treat her. We immediately asked about her "bladder trouble" and were told that the one treatment had given complete and lasting relief, so she had felt no need to return. We told her that we only treated urologic conditions and that she should return to her regular doctor to care for her cold. This she flatly refused to do, saying that he had "fiddled around" for six months prolonging her misery and running up large hospital and professional bills over a condition which we had cured in ten minutes. She had lost all confidence in him and would have none of him. Another doctor now has a good patient, in fact a complete family. We suspect that the doctor who sent that patient to us blames us for the loss of that family. We submit that every one would have been better off, the referring doctor, the patient, and ourselves, if he had exercised more care in the beginning. Had he examined her urethra, he might have cured her forthwith. Had he referred her to a urologist after his initial treatment failure, we might still be on solid ground in the normal patient-physician-specialist relationship.

We have seen countless variations on this theme. One couple brought their two-year old son to two general practitioners and two pediatricians, spent four months of worry and a good deal of money, with no results because of a problem that took one minute to diagnose, ten minutes to correct, and for which we charged only our routine fee for one office visit. The baby had an excoriated, crusted, bleeding urethral meatus and an extensive "diaper rash". Treatment had consisted of dietary changes, acidification of the urine, lotions, salves, and compresses. On some of these "routines" there had been misleading temporary improvement. No one had taken enough of a look to identify a pin-point meatus that required only a simple meatotomy. That mother called one of us recently because the child had an earache, and she wanted to know what ear specialist we would recommend. When we started talking about the family doctor or a pediatrician, we were told that they had "learned their lesson" on that score and wanted to go directly to a "specialist who knows his business". It is certainly not that we are averse to having patients come to us with minor urologic problems, but it seems too bad to have four good doctors discredited in the eyes of an intelligent family purely because of inattention to details or ignorance of a common source of trouble in the male child.

As a matter of fact, too few doctors doing routine neonatal circumcisions pay attention to the caliber of the meatus. At the time that the circumcision is done, (whether by clamp or any other method) it is easy to perform a meatotomy if there is any inadequacy of the outlet. Future trouble for the child may be avoided if this step is taken.

Another simple urologic condition, often badly managed by the general practitioner, is paraphimosis. Apparently many doctors were never told about paraphimosis in medical school; or have done an exceptionally thorough job of forgetting about it if they ever were aware of the mechanics of its production. When a tight prepuce is drawn back over the glans, the preputial ring may become an effective tourniquet at the coronal sulcus, with initial edema and eventual breakdown of tissue into a necrotic slough. The ischaemia is not likely to be conspicuous in the glans itself, but it is marked in that portion of prepuce which has its circulation occluded by the constricting ring. It is extremely rare for paraphimosis to be so severe as to require primary surgical correction; that is, a dorsal slit through the ring for its release. Virtually all may be reduced by gentle but firm manual reduction. The cases that we have seen inadequately handled have usually been mismanaged because the doctor did not recognize the condition as paraphimosis, but thought instead that he was dealing with cellulitis, or the results of trauma, or simple edema from some systemic cause. Sulfa drugs and antibiotics, orally, parenterally, or locally do little good. Cold compresses and hot compresses or alternating hot and cold compresses seldom help. What does help is to slip the glans back through the constricting preputial ring. This may be a painful procedure, but gentleness and dexterity will minimize the intensity and duration of the pain, and in individual circumstances one may do well to assess the virtues of a preliminary narcotic for pain control, or even a moment of anaesthesia. The principles of reduction are simple. By gentle, firm, all-around pressure with the fingers, the edema fluid beyond the ring is pressed back beneath the ring to the tissues of the penile shaft. The ring is then stabilized with the index and middle fingers of both hands and the glans is gently and firmly pushed back through the ring with direct thumb pressure. A little lubricant on the glans may assist the maneuver. Compressing is then indicated. After the tissues have returned to normal, one may consider circumcision to prevent further difficulties.

Foreign bodies in the urethra and bladder are sometimes sources of trouble for general practitioners. It is not a diagnosis which seems to occur readily to the average doctor. In most instances where foreign bodies are introduced into the urethra the motive has been masturbation. It is easy to understand why the anxious and somewhat shamefaced patient may deliberately avoid giving a helpful history. Unless a doctor is suspicious and careful in his questioning, the diagnosis may be missed for a long time. Most urologists can display an impressive museum of objects retrieved from the urethra and bladder. Ours has never been catalogued but some recent additions have been a four-foot length of fine wire, pencils, a glass highball stirring rod, a wheat straw, hairpins, a styptic shaving pencil, and a wad of chewing gum, to name a few. If so many foreign bodies are lost in the depths of the urethra and bladder, there must be many more that are inserted and retrieved as planned. It is a matter to be considered seriously when instances of urethral irritation are encountered for which no reasonable explanation can be found. Our point in mentioning this subject here is that the family physician, if he will suspect the diagnosis and confirm the suspicion, can play an important role in the case. If the situation is such as to require instrumental or operative extraction, he may see that this is done promptly and before distressing sequelae develop. Often, he may remedy the problem immediately without recourse to the specialist. We are reminded of the lad of 18 brought to us because he had inserted a woman's hairpin into the urethra (convex end first) and had lost it. The patient's efforts, his father's efforts, and the family physician's efforts to extract it had all been fruitless, resulting only in a bleeding, edematous, well-traumatized urethra. Extraction actually called for no special skills or instruments. A little antiseptic solution was gently instilled into the urethra, and after a

few minutes, one prong of the pin was abruptly plunged out through the urethra, corpus spongiosum and skin of the shaft, and the whole wire pin was then extracted with ease. Chemotherapy was given and the tiny hole healed without any leakage whatsoever. This merely required a little ingenuity. And ingenuity is normally a major item in the armamentarium of the general practitioner.

The aspect of the entire subject of foreign bodies in the urethra and bladder which is most likely to be overlooked by the urologist is the psychiatric component. The motivation for the introduction of the foreign body is worthy of exploration. Some few show little more than dubious judgment, as in the case of the economical gentleman who tired of paying cash for urethral dilatations of his stricture when he felt that he could do as well with a glass stirring rod. We knew a truck driver who developed hematuria and decided that his styptic shaving pencil would be just the thing for it. The majority, however, involve problems of masturbation. We have seen more than one parent go into a towering rage upon learning the nature of the problem. It has not always been easy to persuade the irate father or mother that severe punishment is not indicated, at least, not until the mental status of the patient has been evaluated.

URETHRAL INSTRUMENTATION

Virtually all general practitioners have occasion to pass catheters, many pass sounds and bougies for the dilatation of strictures, and not a few do some more elaborate instrumentation. If it were not such an easy way to get into trouble, it seems likely that family doctors would do more of this work. It is, perhaps, worthwhile to consider the types of trouble and how they may be avoided.

The most frequent dilemma seems to be acute urinary retention which defies catheterization. After the doctor has exhausted his time and patience with rubber catheters, metal catheters, and possibly catheter guides, the patient is sent to the urologist bleeding from the meatus, badly shaken in spirit, and still in major discomfort. It is rare for the urologist to find any real difficulty in introducing a catheter, and the conclusion must be that the initial efforts were contrary to some of the fundamental principles of catheterization. The first consideration is of the calibre of the urethra. In an adult male, the narrowest portion of the urethra will ordinarily accommodate an instrument measuring 24 French, without any trouble at all. In fact, larger instruments than that will usually pass with ease. It is therefore no major virtue to cling to the mistaken belief that a small catheter has advantages. Our choice would be, for routine use, a number 20F or perhaps an 18F catheter. Such a catheter is of sufficient calibre to escape being hung up in folds of mucosa, has sufficiently thick walls to allow it to be fed into the channel with a firm gentle pressure that cannot be achieved with the limp shoe-string junior sizes, and has sufficient bore to permit prompt drainage. Such a catheter is rigid enough to pass through most urethras without the additional stiffening afforded by a guide. In fact, when a guide is used, its major advantage comes from the curve which it imparts to the catheter, and great caution should be exercised in utilizing its added rigidity. The second consideration is that of discomfort to the patient. Unless he has supreme confidence in his physician, or too much pain to care what happens next, the average male patient looks upon the preparations for catheterization with a bit of justifiable apprehension. But catheterization need not be a painful affair. We believe that a local anaesthetic is ordinarily of great assistance. For our Clinic work, we like a freshly prepared solution of cocaine bicarbonate. Since this is unstable and requires mixing just before it is used, it is not practical for the average general practitioner or for use in the home. For this purpose, there are numerous satisfactory anaesthetic jellies and lubricants, slower acting but equally safe. We have won the gratitude and confidence of many patients simply through the judicious use of a little local urethral anaesthesia. Catheters pass more easily when patients are not tense and writhing.

The final consideration is the nature of the obstruction. An enlarged prostate is obviously an impediment to the outflow of urine, but it is not ordinarily a major hindrance to the ingress of a catheter. The usual difficulty in passing any urethral instrument is encountered

at the external sphincter. In proper instrumentation, the tip of the catheter or instrument is passed with ease to the sphincter where it encounters resistance. At this point, a firm, gentle, steady pressure will overcome the muscle tonus; but short jabs will accomplish nothing. Under certain circumstances, such as the presence of a huge adenoma, a contracted vesical neck, or a dense stricture, this routine will be ineffectual, but these situations call for special instrumental technics.

The general practitioner may not care to equip himself with a complete armamentarium of filiforms, followers, bougies, and the like, but a single filiform is often an effective instrument in retention caused by urethral stricture. With a little patience and gentle manipulation in a well anesthetized and well lubricated urethra, it is generally possible to slip a filiform through a stricture and into the bladder. If this filiform is fastened in place with a little adhesive tape about the glans, the patient can usually void in reasonably satisfactory fashion. This is often a good method of converting a night-time emergency into a matter that can be handled with deliberation later on. However, a urethral stricture is not to be taken lightly and passed off with simple dilatations. A long standing stricture may be the cause of obstructive changes in the bladder, ureters, and kidneys and is almost invariably associated with chronic urinary tract infection. It may be complicated by stones, urethral diverticula, or even carcinoma of the urethra. It is not a simple disease. Its definitive treatment should always be based on urethrography and upper urinary tract studies. It is a frequent mistake of the general practitioner to ignore this.

Whereas the normal urinary tract is not easily infected, the abnormal urinary tract (and especially the obstructed urinary tract), is difficult to keep uninfected. Even so, most patients with prostatism maintain uninfected urine until they are instrumented. There have been several striking studies on the normal flora of the urethra and it seems almost impossible to expect that the urine can be kept sterile in the face of multiple catheterizations or instrumentations, regardless of technic. On the other hand, catheterization should be kept as aseptic as possible. The meatus should be well cleansed with 70 per cent alcohol in the male, or in the female, with soap and water followed by Zephiran† or other appropriate antiseptic solution. We prefer to handle the catheters entirely with sterile instruments rather than to rely upon sterile gloves which may give a false sense of security. By whatever technic the catheter is introduced, some bacteria are probably carried back to the bladder and some trauma is inflicted upon the urethral mucosa. Each time catheterization is carried out, these insults are repeated. In consequence, we prefer to insert a catheter and hold it in place, either with adhesive strapping or with a retention balloon of the Foley type, until the necessity for catheterization is past. The patient who is maintained on retention drainage with adequate urinary antiseptics administered at the same time is far less likely to be seriously infected than is the individual who is subjected to repeated interval catheterization.

† Zephiran is Winthrop-Stearns, Inc.'s trade name for their brand of high molecular alkayl dimethyl benzyl ammonium chlorides.

UROLOGIC TRAUMA

There is no circumstance in which the initial judgment of the physician can play a more important role than in trauma to the urethra or bladder. Proper initial management often spells the difference between complete recovery and lifelong invalidism. Perhaps 10 per cent of all injuries in which there is a pelvic fracture are complicated by urethral or vesical rupture. In these cases, the immediate repair of the rupture is the matter of prime importance. A simple suprapubic cystostomy may well be a life-saving procedure, but avoidance of future morbidity is dependent on reconstruction of the integrity of the urinary passages. It is indefensible to divert the urine and allow the injured portions of the tract to heal with scarring, distortion, and perhaps complete occlusion.

Ten years ago, a young man was thrown by a horse and sustained a pelvic fracture with urethral rupture. He was operated upon promptly by a general surgeon who simply inserted a cystostomy tube but did nothing to the

urethra. The severed urethra scarred in, and when the cystostomy tube was removed, all the urine passed through the suprapubic tract. This was the beginning of a series of surgical procedures for vesical calculi, bladder neck obstruction, urethral diverticulum, et cetera, which ended only when the patient came to us and we found it possible to excise the entire strictured area and carry out end-to-end anastomosis of the urethra. An exactly similar situation presented itself as a result of a railroad injury in which a man in his late thirties suffered a urethral rupture which was allowed to seal off solidly when the surgeon performed only a cystostomy. In this case, several perineal plastic procedures were required to correct the initial oversight. This predicament may usually be avoided completely if, at the time of operation, a catheter is passed through the urethra as a splint over which the channel may re-epithelialize. If extravasation of urine has not already occurred, it may be possible to eliminate surgery entirely. We have had two such cases in recent months. In each, the patient was involved in an automobile accident, sustained a pelvic fracture, was bleeding from the urethra, and was unable to void in spite of a strong desire to do so. In each case, the first physician to see the patient had recognized the problem, had attempted careful catheterization, but had failed in his efforts, and had promptly sought help of a specialist. In one case, our own efforts to catheterize the injured urethra were successful only after the patient was anesthetized, and in the other case, careful manipulation of the catheter on a guide was successful without anesthesia. No open surgery was required in either case, although the urethral injury had been of a severity comparable to those cases in which a suprapubic cysto tomy had been performed.

DIABETES AND UROLOGY

In diabetes polyuria may be so marked as to lead the patient to conclude that he has kidney trouble. The casual physician may send the patient to the urologist without diagnosing the diabetes himself. That, however, seems less important to us than the fact that many cases of diabetes mellitus may be converted into serious urologic problems. There are two generally accepted observations. Diabetics are more susceptible to infections than are non-diabetics, and urinary tract infections, especially pyelonephritides, are encountered in up to 20 per cent of all individuals dying with diabetes. In consequence, we deplore the use of catheters or urethral instruments of any type in diabetic patients. We question seriously the use of catheterization for obtaining urine in the comatose patient though it may greatly facilitate the administration of insulin "by reaction". Even though the treatment of infection has been greatly advanced by potent antibiotics, it is still our experience that the diabetic patient with urinary tract infection stubbornly defies therapy and may require the constant administration of urinary antiseptics even as he requires constant daily administration of insulin. Urologic complications of diabetes mellitus deserve more attention than they have received in the literature. The urinary tract of the diabetic patient is particularly easy to infect, and it should never be the role of the physician to aid and abet such infection. Urethral instrumentation is never a completely benign procedure; in the diabetic person, it is fraught with additional dangers.

SUMMARY

1. We have illustrated a few ways in which the general practitioner and the urologist may collaborate as a team, to the reciprocal advantage of themselves and the patient.

2. The general practitioner should pay careful attention to urologic problems, and after proper evaluation, he should sort out those which he can manage successfully himself, and those in which he needs the help of a specialist. With such screening by the family physician, the stage is set for the greatest professional usefulness of the physician, and the optimum in service to the patient.

St. Vincent's Hospital
Erie, Pennsylvania

DIFFERENTIAL DIAGNOSIS OF JAUNDICE*

FRANK W. KONZELMANN, M.D., Chevy Chase, Md.**

The accurate determination of the cause or pathogenesis of jaundice in a patient is not just one of the nice accomplishments of a good physician; it is *sine qua non* in the correct choice of treatment. Surgery in severe cases of hepatitis may be as fatal as surgical delay in obstruction of the extrahepatic biliary passages.

There is no one trustworthy laboratory or liver function test which will make the decision easy. No group of function tests will replace a careful bedside examination with a complete knowledge of the patient's medical history. The final decision must be tempered by that sound clinical judgment which is born only of years of experience. Sound clinical judgment is not acquired from books or lectures but at the bedside, in the operating room and at the autopsy table.

Liver function studies will frequently reveal the predominance of one type of lesion over another. The sequence of pathologic events may be understandable if one possesses a knowledge of the physiology and anatomy of the liver, and fully realizes that the structures of the liver are so closely associated with one another that injury of one cannot long exist without concomitant injury to another.

The function unit of the liver is the lobule (Fig. 1). The bile capillaries radiate from the central vein to the periphery. Eppinger has shown that at the periphery of the lobule the bile capillary terminates in a bulbous dilation, the ampulla, which drains into the interlobular bile ducts.

Aschoff considered the ampulla the most vulnerable portion of the intrahepatic channels subject to injury by toxins or increased intracapillary pressure. It is this concept upon which the present day explanation of the phenomena resulting in jaundice is in part based. The ampulla and the terminal bile duts are referred to by modern writers as the *cholangiole.*

* Presented before the Section on Surgery, of The Medical Society of New Jersey on May 22, 1950.

**At the time this article was submitted, Dr. Konzelmann was pathologist at the Atlantic City Hospital. He is now pathologist at the Emergency Hospital, Washington, D. C., but this work is from the Atlantic City Hospital.

BILE PIGMENTS

The chemistry of bile pigments and the mechanism by which these pigments are formed and excreted is complex. Much has been learned but much remains to be discovered. There are many theories, any one may serve as a working hypothesis in an explanation of the manifestation of altered pigment excretion and retention. It is not implied that the theory herein presented is more acceptable than any other. It has served well in the analysis of many cases during the last five years.

The bile pigment bilirubin, as it is produced by the disintegration of hemoglobin, exists in combination with a globulin and is named *bilirubinglobin.* It is not diffusible and hence does not leave the blood capillaries. It is present in the blood in a concentration less than

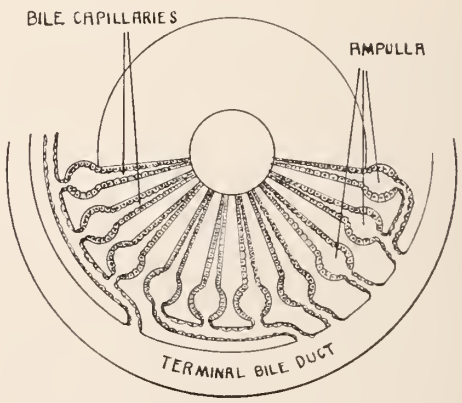


Figure 1.

one milligram per hundred cubic centimeter of serum. It does not appear in the urine for (being of protein nature) it is held back by the glomerular membrane. It is the function of the liver cell to separate the pigment molecule from the globin and to excrete the former into the bile capillaries as *bilirubin sodium.* Bilirubin sodium is the chief bile pigment. It

is not present normally in the blood but should it enter the blood stream it will diffuse into the skin and other tissues causing jaundice. It will appear promptly in the urine. Bilirubinglobin does not react with Ehrlich's diazo reagent immediately unless the protein is first precipitated or extracted with alcohol. Then it produces a color reaction (Van den bergh's indirect test). Reactions may occur after standing in contact with Ehrlich's diazo reagent (Van den bergh's delayed or biphasic reaction). These are both related to bilirubinglobin. Only when bilirubin sodium is present in serum does a color reaction occur immediately with the diazo reagent. Present day methods consider the amount of color which develops in one minute as a measure of the amount of bilirubin sodium (one minute or direct reacting bilirubin) in the serum. The relative amounts of these two forms of bilirubin cannot be used to distinguish obstructive from non-obstructive, but the relative amounts, (the ratio of one to the other) do point to the degree of either liver cell or cholangiolar injury.

Bilirubin in the intestine is converted by bacterial action into *urobilinogen*. Some urobilinogen is reabsorbed and carried back to the liver where, in health, it is re-excreted. This is apparently a delicate function of the liver cell which is easily disturbed. In disease of the liver cell the unconverted urobilinogen remains in the blood and is carried to the kidney and appears in the urine. In health 10 to 250 milligrams of urobilinogen appears in the feces in 24 hours and 0 to 4 milligrams appear in the urine.

In *obstructive jaundice,* fecal urobilinogen is diminished, the degree depending on the degree of obstruction. Urine urobilinogen is normal or diminished.

In *liver cell disease,* fecal urobilinogen is diminished while urine urobilinogen is increased. If little or no bile is formed by the liver, little or no urobilinogen will be produced so that little or none will appear in the urine. If, in a case established as hepatitis, urobilinogen disappears from the urine and feces, its reappearance in the urine may be considered as evidence of the return of functional capacity of the liver.

In *hemolytic disease,* if the liver remains normal the excessive bile formation will result in a high fecal and low urine urobilinogen. However, since the anoxia or toxemia associated with the hemolytic disease may injure the liver cell the picture is often one of a combination of these two diseases.

Thus the bile pigments tend to differentiate obstructive and parenchymatous lesions of the liver from hemolytic disease. Differential diagnosis would not be so difficult were it not for the fact that obstruction frequently is sooner or later associated with infection which injures the liver cell or that parenchymatous lesions include the cholangiole so that what little bilirubin sodium is formed is permitted to leave the bile capillaries and enter the blood stream by one channel or another. In addition, a very viscid bile forms bile thrombi which become a cause of intrahepatic obstruction. The investigation of other functions may assist.

PROTEIN FORMATION

The liver is intimately concerned with the synthesis of proteins. In disease, altered proteins appear and the ratio of albumin and globulin is disturbed. Numerous tests are available for the demonstration of altered proteins. It is not apparent that any one of them is wholly and at all times dependable. A battery of such tests would, no doubt, increase diagnostic accuracy of disturbances of this one function. The thymol turbidity test combined with the cephalin cholesterol flocculation test, in the majority of cases, supply dependable information.

CHOLESTEROL METABOLISM

The metabolism of cholesterol is not wholly understood and the reports of investigators are conflicting; but there is conclusive evidence that the liver *is* concerned in cholesterol metabolism and its excretion. Determination of the levels of serum total cholesterol and serum cholesterol esters and their correlations with serum bilirubin levels is of great aid in the differential diagnosis of jaundice. Single observations are likely to be misleading but serial studies will show the trend and will reveal the

predominance of one lesion or the other (hepatocellular or cholangiolitic). Lichtman[1] (quoting Green *et al.*[4]) states that a cholesterol ester value of less than 60 milligrams per 100 cubic centimeters in jaundiced patients treated surgically has been associated with a greater mortality than those in whom the ester value was above 60.

Hypercholesterolemia is usually observed in cases of obstructive jaundice and the cholesterol values parallel the bilirubin levels. In hepatocellular disease both the cholesterol esters and the total cholesterol are diminished.

SERUM PHOSPHATASE

Phosphatase is the name applied to a series of enzymes capable of hydrolyzing phosphoric acid ester substrates. The enzymes are most active at a definite hydrogen ion concentration. There are alkaline phosphatases and acid phosphatases. Many organs, including the liver, are a source of phosphatase. The biliary tract is apparently one of the important excretory routes, so that obstruction might be expected to be associated with elevated serum phosphatase levels and it commonly is. Phosphatase is elevated in hepatocellular disease but seldom to high levels. The rise of serum phosphatase is not significant in hemolytic jaundice. When serum phosphatase values are less than 10 Bodansky units in a jaundiced patient,[2] it is not likely that obstruction is the cause.

PROTHROMBIN FORMATION

The liver is the seat of prothrombin formation and vitamin K is essential in its production. If the prothrombin levels are diminished in a case of jaundice and vitamin K is administered parenterally, there will be a sharp rise of more than 10 per cent if liver cells are intact. Vitamin K does not cause a rise of prothrombin in the presence of hepatocellular disease. In some cases this test is of great value but in others it offers no help. Many cases of liver damage do not reveal a hypoprothrombinemia; therefore, the test is not applicable. The prothrombin test itself is subject to technical difficulties which are often responsible for errors of more than 10 per cent unless performed by one with technical experience using one of the more accurate methods. (Link-Shapiro or the two-stage method of Seegars and others).

BROMSULPHTHALEIN RETENTION

Bromsulphthalein is removed from the blood largely by the liver. There is some experimental proof that other organs are capable of removing it, but if intelligently employed this test can be of great aid. Retention is affected by posture, by fever and by surgical operations. It is an index of the severity of (and extent of) hepatocellular disease when obstruction can be ruled out. In the subsiding phase of hepatitis, it reveals the degree of residual liver damage.

TESTS FOR BILIRUBINURIA

The Harrison spot test is one of the most useful methods of revealing hepatic disease. When performed as a routine urine test it has, on numerous occasions, revealed hepatic disease before it was suspected clinically. It is, of course, related to the presence in the blood of bilirubin sodium. Strangely enough, bilirubinuria occurs at much lower levels of serum bilirubin in the early stages of hepatitis than it does in the late stages. Watson[3] reports a disappearance of bilirubin from the urine when serum levels have been 3 milligrams. This is one of the phenomena which cannot be explained by any of the theories concerning bilirubin. The technic of the test is simple.[3]

OTHER TESTS

Many other tests of liver function may be employed. Some are complicated, and time consuming and demand more expert technical skill. Except in experienced hands they yield little more of differential diagnostic value. In the control of a case, it is often wise to study the serum albumin and globulin levels. In prolonged cases, serum albumin may fall to dangerously low levels. A rise of serum globulin in an obstructive lesion usually signifies infec-

1. Lichtman, S. S.: *Diseases of the Liver.* Lea and Febiger, Philadelphia (1949).
2. Gutman, A. B., Olson, K. B., Gutman, E. B., and Flood, C. A.: Journal of Clinical Invest., 19:120 (January 1940).
3. Watson, C. J., and Hawkinson, V.: Journal of Laboratory and Clinical Medicine, 31:914 (1946).
4. Watson, C. J., and Hoffbauer, F. W.: Annals of Internal Medicine, 26:813 (June 1947).

tion. Urinary coproporphyrin and serum biliverdin levels may some day be of great value when practical methods for their determination have been developed.

In the laboratories of Atlantic City Hospital the hepatogram of Watson[4] has been successfully employed in the study of cases and in the differential diagnosis of jaundice. Watson proposes two schedules for study. These are presented with illustrative cases in figures 2, 3, 4, 5 and 6.

SUMMARY

The differential diagnosis of jaundice is accomplished only by the combination of a full knowledge of the case history, the physical findings and a battery of function tests performed serially. Final decision rests upon sound clinical judgment. The fundamental facts concerning each of the tests employed in the Watson hepatogram have been discussed. Five illustrative cases in which the Watson hepatogram has been employed are discussed.

CONCLUSIONS

The differential diagnosis of jaundice is difficult because pathologic changes and disturbances of physiology involve in varying degree all of the functional units of the liver but not necessarily all of the functions of the liver to the same degree. Therefore diagnosis must be based on clinical evidences and function tests interpreted with sound clinical judgment. The serial Watson hepatogram offers the most dependable and systematic method of investigating liver functional derangement.

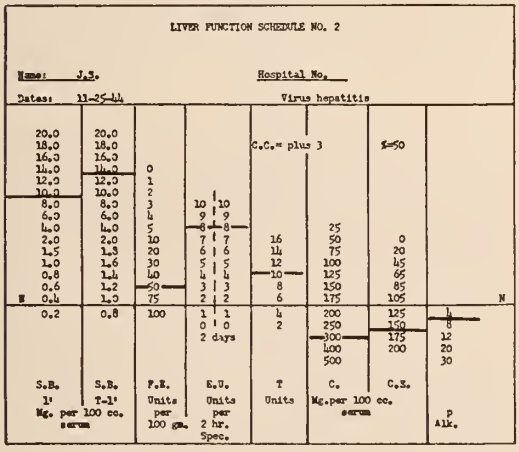


Figure 2. The indirect reacting bilirubin is elevated beyond the one minute bilirubin. Fecal urobilinogen is moderately depressed but urine urobilinogen is elevated. Cephalin cholesterol flocculation and thymol turbidity are elevated. The serum alkaline phosphatase and the percentage of cholesterol esters are both low. Except for the moderate elevation of total cholesterol this picture points to hepatocellular disease. This patient recovered and three months later showed only a moderate bromsulphthalein retention.

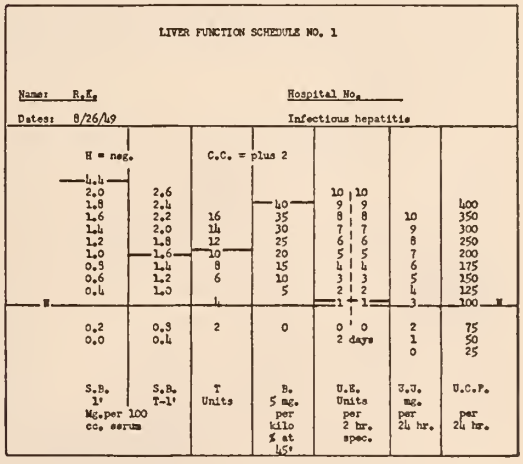


Figure 3. The picture here is suggestive of an obstructive lesion. The high retention of bromsulphthalein, the elevated thymol turbidity pointed to liver cell injury. Subsequent hepatograms revealed low cholesterol and cholesterol esters. Serum alkaline phosphatase was slightly elevated. History and physical findings did not support a diagnosis of an obstructive lesion. This patient has recovered and is much improved. At the time of this examination she was only slightly jaundiced and there was no bile in the urine. She had been ill for several weeks.

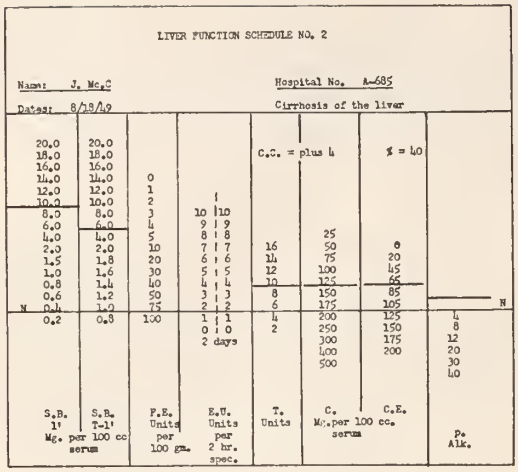


Figure 4. Both the one minute and the indirect bilirubin are elevated. Urobilinogen studies were not made. The thymol turbidity, cephalin cholesterol, the total serum cholesterol, cholesterol esters and the alkaline phosphatase point to liver cell disease. Serum albumin was 2.8 grams per cent, serum globulin 4 grams per cent. Prothrombin was 35 per cent of normal and there was no response to vitamin K injection. The diagnosis was established at autopsy.

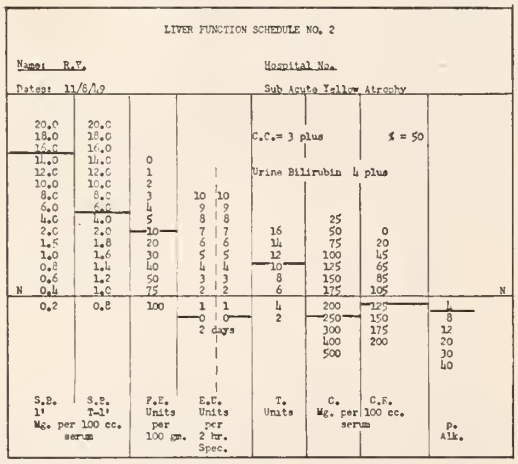


Figure 5. The low fecal and urine urobilinogen here suggested an obstructive lesion. However the low fecal urobilinogen yielded little for absorption and there was consequently none to be excreted. The low serum alkaline phosphatase made the presence of an obstructive lesion unlikely. The thymol turbidity, the cholesterol flocculation tests, the low serum cholesterol and cholesterol esters pointed to hepatocellular disease. Because of exquisite pain and tenderness over the gall bladder area, an exploratory laparotomy was performed. There was no obstructive lesion, the liver was small and nodular. The patient subscquently died.

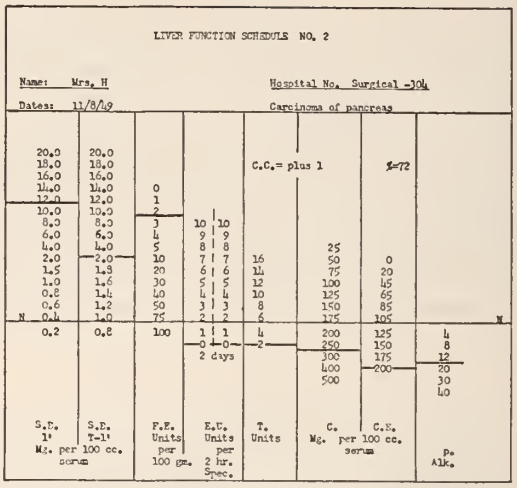


Figure 6. This is a characteristic picture of an obstructive lesion. The disproportionately high one minute bilirubin, the low fecal and urine urobilinogen the low results of thymol-turbidity and cholesterol flocculation tests, the high percentage of cholesterol esters and the high (above 10) serum alkaline phosphatase all point to jaundice from some cause other than hepatocellular disease.

EXPLANATORY NOTES

S.B. 1'—Serum Bilirubin, prompt reacting.

S.B.T.—1'—Combined Serum Bilirubin (total minus 1').

F.E.—Fecal Urobilinogen in Erhlich units per 100 Grams of feces.

E.U.—Urine Urobilinogen in Erhlich units per 2 hour specimen.

U.U.—Urine Urobilinogen mg. in 24 hours.

T. Units—Thymol Turbidity.

C.—Total Cholesterol in mg. per 100 c.c. of serum.

C.E.—Cholesterol esters in mg. per 100 c.c. % of total cholesterol as indicated at the top of the column.

P.Alk.—Alkaline phosphatase in Bodanski units.

C.C.—Cephalin Cholesterol flocculation test.

B.—Bromsulphthalein retention at the end of 45' and after a 5 mg. dose.

H.—Harrison spot test for bile in urine.

N-line—Line of normal values.

Heavy underline—Values obtained.

CHLOROPHYLL AS A DEODORIZER OF LOCHIAL AND MENSTRUAL ODORS

Frederick S. Taber, M.D., New Brunswick, N. J.

In 1911, Willstatter[1] and Hug isolated chlorophyll by a method which depends on separation by means of non-miscible solvents. This method has been so improved that pure chlorophyll can now be obtained without much trouble with a yield of about 80 per cent of the total chlorophyll content. In the early 1930s, Burgi[2] introduced chlorophyll into medicine. He used it first in the treatment of various anemias with good results and later recommended its use in other conditions, such as arteriosclerosis, debility and nervousness. A product devised by him has been on the market in Great Britain for at least 15 years under the trade name of "Phyllosan". Although, Burgi studied chlorophyll and its derivatives from many angles, he never refers to its deodorant properties.

The first mention of the deodorizing action of chlorophyll fractions was made by Westcott[3] in 1950. He found that chlorophyll neutralized obnoxious odors in the mouth from food, beverages and tobacco. People suffering from halitosis of unknown origin were temporarily relieved by taking chlorophyll orally. Westcott also found that chlorophyll taken orally, neutralized the obnoxious odors from perspiration due to physical exercise, "nervousness" and illness and also removed foot odors, menstrual odors and many urine odors from ingested materials.

Serling[4] used chlorophyll in the treatment of obnoxious odors in dogs and concluded that 100 milligrams per 25 pounds of body weight aided in eliminating most objectionable body and mouth odors in dogs within 24 hours. He observed no toxicity nor any effect on normal digestive activities.

These reports stimulated our interest in attempting to eliminate lochial and menstrual odors. The average American woman is fastidious about her appearance, and also in regard to olfactory impressions. In spite of scrupulous cleanliness many women have been made utterly miserable by a disagreeable odor during menstruation—an odor which, to date, has defied obliteration. Even more so, her parturient sister has been plagued with the characteristic offensive odor of lochia which lingers upon her person, in her room and even in the corridors of the obstetrical pavilion. These odors are presumed to arise from the chemical and bacterial decomposition of blood and cellular debris. It was at first doubted that chlorophyll would eliminate such odors as they would appear to be beyond any metabolic effect of the substance. We were agreeably surprised with the results, however. Chlorophyll *does* quite effectively deodorize menstrual and lochial odors. This gives rise to still further speculation as to its *modus operandi* which has not as yet been satisfactorily explained.

TOXICITY

Chlorophyll appears to be non-toxic in any doses which would conceivably be given to patients. No untoward symptoms of a general or digestive nature were observed in any of the subjects to whom up to 400 milligrams daily was administered. Animal experimentation yielded the following results:

TABLE I—WHITE, MALE MICE, 18 TO 20 Gms.
(Intraperitoneal Administration)

Dose—Mgm	No. Dead / No. Injected 24 Hours	No. Dead / No. Injected Cummulative (96 hrs.)
3200	2/10	8/10
2100	1/10	2/10
1400	1/10	1/10
1000	0/20	0/20

LD_{50} 2500—190 mg/kg
LD_1 1300 mg/kg
Upon oral administration of 3000 mg/kg to 20 animals there were no deaths after 96 hours.

The study on parturient patients was conducted on private obstetrical patients under hospital supervision. About 60 per cent of the patients on the maternity floor were given chlorophyll while the remaining patients were used as controls. The preparation used was a highly purified chlorophyllin derivative of chlorophyll.*

LOCHIAL ODORS

The evaluation of the effectiveness of the preparation was made by the pooled opinions of the patient, the accoucheur and the graduate

*(The chlorophyll tablets used in this study were supplied by Mount Laboratories, Incorporated, New Brunswick, New Jersey, under the name of Gynophyll.)

nurses in daily attendance of the patients. On numerous occasions the unsolicited favorable opinion of visitors to the patients were received. Patients were scored according to the following code:

E—Excellent—all odor eliminated.
G—good—slight odor noticeable at times.
F—fair—moderate odor or slight odor most of the time and strong odor at other times.
P—poor—no noticeable decrease in odor.

An initial group was started on one tablet every twelve hours commencing on the third postpartum day. This did not appear effective. The next 100 patients were given one tablet of chlorophyll four times daily, commencing the day following delivery. This group was comprised of 67 multiparas and 33 primiparas, ranging in age from 19 to 39 years. The results were as shown in Table II, Group A.

The multiparas were the more appreciative group having had previous experience with lochial odor. Effectiveness of chlorophyll was not related to parity, race nor age.

Following the excellent results obtained on the preceding group it was decided to test the effectiveness of giving four tablets at a single dose. A group of 32 patients were so tested with the result as shown in Table II, group B.

Still another group of 39 patients were given two tablets every 12 hours with the result as shown in Table II, Group C.

TABLE II

Group	*A*	*B*	*C*
E.	73%	12.5 %	8.3%
G.	20%	6.25%	30.7%
F.	4%	37.5 %	48.6%
P.	3%	43.75%	12.4%
Dosage	1 Q.I.D.	4 O.D.	2 B.I.D.

The duration of the effect in both of these groups was similar. In the "excellent" group, deodorization lasted 12 hours; in the "good" group 8 to 9 hours; in the "fair" group about 6 hours; in the "poor" group diminution of odor lasted only 4 to 5 hours.

MENSTRUAL ODORS

The menstrual group was comprised of student nurses and some graduate nurses. Volunteers were requested among those individuals who were particularly aware of obnoxious odors during menstruation. Virtually all of this group used "pad" type protection rather than the tampon variety.

An initial group of fifty subjects was used with the results shown in Table III, Group A.

The following month, most of the girls who had excellent results the first month were divided into two groups and were given four tablets at a single dose and two tablets B.I.D. respectively. The remainder of the original group (that is, those with poorer results initially) were again given one tablet Q.I.D. The results of the second month were as shown in Table III, Groups B, C and D.

TABLE III

Group	*A*	*B*	*C*	*D*
E	76%	6.8%	23%	40%
G.	8%	20 %	23%	20%
F.	10%	26.6%	54%	25%
P.	6%	46.6%	0%	15%
Dosage	1 Q.I.D.	4 O.D.	2 B.I.D.	1 Q.I.D.

Recently the manufacturers have perfected a new chlorophyll tablet containing still more highly purified material. This has been tested on 60 postpartum patients with excellent results. Again the dosage was one tablet four times daily. Of this group, 34 patients (57 per cent) had complete elimination of odor except in the early morning (10 hours after the last evening dose); 24 patients (33 per cent) had good results, noticing slight odor at times, and 6 patients (10 per cent) had no apparent relief from odor at all.

SUMMARY

The preparation of chlorophyll* used proved effective in obliterating lochial and menstrual odors in a high proportion of the subjects tested when given in dosage of one tablet four times a day. Duration of the chlorophyll effect does not appear to be materially enhanced by larger single dosage. Deodorization of other bodily and breath odors as reported[3] in earlier papers[4] were incidentally noted during this experiment.

Since chlorophyll is relatively non-toxic and no untoward effects were reported in these series, it is believed that more frequent dosage could be safely employed in individuals where its effect is of short duration.

55 Paterson Street

Bibliography will appear in author's reprints.

PENICILLIN THERAPY OF TYPHOID FEVER*

NELSON H. SCHIMMEL, M.D., WALTER V. MATTEUCCI, M.D., and
WILLIAM P. BOGER, M.D., Philadelphia, Penna.

The clinical response of typhoid fever to chloramphenicol is a gratifying contrast to the results obtained with former treatment methods. While there is a dramatic reduction in fever and toxicity of patients treated with chloramphenicol, the frequency of relapse,[1,2] the bacteriologic failures, and the inability to eliminate the carrier state[3,4,5] make it desirable to continue to search for additional methods to combat *S. typhosa* infection.

There is considerable laboratory evidence[6,7,8] indicating that penicillin might be effective in treating typhoid fever.[9,10,11] However, there have been few clinical trials with human typhoid infections. We reported recently[12] the successful treatment of a case of typhoid fever with penicillin. Since that time, we have had the opportunity of treating several more cases. As far as we can determine, *there are no other claims in the literature for the successful treatment of typhoid fever in humans with penicillin alone.*

Previous reports[13,14,15] of typhoid fever treated with combinations of penicillin and sulfathiazole are, on the whole, unfavorable. These reports contain little information regarding the sensitivity of the infecting strain of *S. typhosa* or the plasma concentrations of either the antibiotic or the sulfonamide that were attained. We feel that when penicillin-sulfonamide therapy was unsuccessful, the failures were caused by failure to attain and maintain effective plasma concentrations of the antibiotic.

Experience at the Philadelphia General Hospital indicates that penicillin in doses of the size of those reported by McSweeney[13] and others[14,15] does not produce plasma concentrations that are inhibitory for most strains of *S. typhosa.*

Initial success in treating typhoid fever with penicillin encouraged us to treat other cases in a similar manner and this is a report of our experiences. The cases reported below lend support to the original hypothesis that penicillin *in adequate doses* can eliminate typhoid infections. The therapeutic regimen used in these cases was 1,000,000 units sodium penicillin intramuscularly every three hours and Benemid† by mouth, 500 milligrams every six hours.

Case 1. A 37 year old female was admitted on September 19, 1950, with chills and fever of three days' duration. The illness began suddenly with chills followed by fever and headache. Procaine penicillin 300,000 units twice daily was administered because of fever but the symptoms persisted until admission. Additional history could not be obtained because the patient was a mental defective.

Examination revealed fever and severe asthenia, but no acute distress. Temperature: 104. Pulse: 80. Respirations: 26. Blood pressure was 130/80. The heart was slightly enlarged and there was a loud, rough systolic murmur and a thrill at the apex.

Treatment consisted of symptomatic measures until the fourth hospital day when the blood culture taken at the time of admission was reported as positive for *S. typhosa* and "specific therapy" was begun.

The following day rose spots appeared on the abdomen. In spite of the out-cropping of spots and the high temperature, the patient was greatly improved. Blood culture after twenty-four hours of treatment was sterile. No other positive cultures were demonstrated after this time (seven days

* From the Department of Medicine, Philadelphia General Hospital and the Section of Infectious Diseases of the Department of Medicine, Hospital of the Unversity of Pennsylvania. This study was supported by the Research Fund for Infectious Diseases of the Schools of Medicine, University of Pennsylvania. This material was presented in part by Dr. Boger to the Camden County Medical Society on December 5, 1950.

1. Smadel, J. E., Woodward, T. E., Bailey, C. A.: Journal of the American Medical Association, 141:129 (1949).
2. American Practitioner, 1:85 (1950).
3. Smadel, J. E., Ley, H. L., Jr., Diercks, F. H.: Annals of Internal Medicine, 34:1 (1951).
4. Stryker, H. B., Jr.: New England Journal of Medicine, 242:20 (1950).
5. Rumball, C. A., Moore, L. G.: British Medical Journal, 1:943 (1949).
6. Bigger, J. W.: Lancet, 1:81 (1946).
7. Evans, J. W.: Lancet, 2:113 (1946).
8. Miller, A. K., Wilmer, D. L., Verway, W. F.: Proceedings of the Society of Experimental Biology and Medicine, 74:62 (1950).
9. Welch, H., Reedy, R. J., Wolfson, S.: Journal of Laboratory and Clinical Medicine, 35:663 (1950).
10. Jackson, G. G., Gocke, T. M., Collins, H. S., Finland, M.: Journal of Infectious Diseases, 87:64 (1950).
11. Verway, W. F., Miller, A. K.: Proceedings of the Society of Experimental Biology and Medicine, 65:222 (1947).
12. Boger, W. P., Schimmel N. H., Matteucci, W. V.: Antibiotics and Chemotherapy, 1:140 (May 1951).
13. McSweeney, C. J.: Lancet, 2:115 (1946).
14. Bevan, G. *et al.*: Lancet, 1:545 (1948).
15. Parsons, C. G.: Lancet, 1:510 (1948).

† Sharp and Dohme's trademark for p-(Di-n-propyl-sulfamyl)-benzoic acid which has tentatively been given the generic name "probenecid".

since onset of symptoms). After five days of treatment on this schedule, the penicillin was increased to 1.25 million units every three hours because the temperature had not returned to normal. When this dose failed to reduce the temperature to normal, the daily intake of Benemid† was reduced to 1 Gram on the supposition that the patient might be reacting to this drug. Some reduction in temperature occurred but the temperature did not reach normal until the eighth day of treatment (fifteenth day of disease). This patient was followed for forty-five days after cessation of treatment and all cultures were negative for *S. typhosa*.

The penicillin sensitivity of the infecting organism was between 10 and 25 units per milliliter. The penicillemia during treatment ranged between 262 and 20.5 units. Benemid† actually exerted little effect in this patient inasmuch as she had renal impairment and on this basis already had elevated plasma concentrations. This was demonstrated by administering 1,000,000 units of penicillin without Benemid† and the plasma concentrations were found to range between 137 and 25.3 units per milliliter, values similar to those observed when Benemid† was administered.

Case 2. A 31 year old female was admitted October 30, 1950, complaining of nausea and vomiting of 18 days' duration. The illness began suddenly with malaise and diarrhea.

Sulfonamide medication administered for one day caused a drug reaction (fever, "hives", swelling of the face, and "red urine"). Penicillin, aureomycin, and chloromycetin were prescribed but the patient did not respond to these and was admitted to the hospital.

On admission she appeared acutely ill, feverish, and dehydrated. The physical findings were noncontributory. The temperature was 104; pulse was 100; and respirations were 30.

For the first four days the patient was given empirically 100,000 units of penicillin intramuscularly every three hours; parenteral fluids; and symptomatic treatment. A blood culture drawn at the time of admission was reported positive for *S. typhosa* on the fourth hospital day and the treatment of 8,000,000 units of penicillin plus Benemid† was instituted. During the second day of this therapy the patient felt greatly improved even though the temperature was still elevated. This return of well-being is comparable to that seen in chloramphenicol-cortisone treated cases.[3] Blood cultured on the fourth day of this intensive therapy was positive for *S. typhosa*, but thereafter the blood, urine, and stool cultures were negative. The temperature dropped appreciably after five days of treatment and fell to normal on the seventh day of therapy. After reaching normal, the temperature remained flat throughout her hospital stay.

The infecting strain of *S. typhosa* in this case required between 5 and 10 units of penicillin per milliliter to inhibit its growth *in vitro*. While on treatment, it was demonstrated that the penicillemia ranged between 32 and 7.35 units per milliliter, thus fulfilling the requirements of successful treatment by attaining inhibitory penicillin plasma concentrations.

The extent of the Benemid† effect in maintaining these high concentrations may be judged by comparing the penicillemia of 5.6 to 2.6 units that resulted when 1,000,000 units sodium penicillin was given intramuscularly without Benemid.†

Case 3. A 73 year old male was admitted to the hospital on October 3, 1950, complaining of nausea and epigastric distress following meals. Roentgen examination revealed a normal upper gastrointestinal tract but an opacity in the region of the right kidney. Subsequent intravenous and retrograde pyelographic studies confirmed the location of the density as being in the pelvis of the right kidney. Routine cultures from the right kidney (made at the time of the retrograde study) contained *S. typhosa*. The urine from the left kidney was sterile. Subsequent cultures of voided urine were positive for *S. typhosa* on two occasions. This patient had had typhoid fever in 1915. Treatment with penicillin and Benemid† according to the schedule outlined previously was continued for twelve days. Urine cultured on the third day of treatment was negative as were all subsequent urine cultures, including a retrograde specimen from the right kidney taken on the last day of treatment.

Penicillin sensitivity of the organism was 25 units per milliliter. The penicillinemia under the influence of Benemid† ranged between 47 units and 10.7. A random urine collection following an intramuscular dose of penicillin showed a penicillin concentration of 535 units. This concentration is far more than adequate to inhibit the infecting organism. The patient has been followed for two months and the urine cultures have remained negative for *S. typhosa*.

DISCUSSION

In the first case there is little doubt that penicillin effected the cure. The temperature response although not dramatic was as rapid as any symptomatically treated case of typhoid fever seen at this hospital between 1942 and 1949, and it seems unlikely that the disease had merely run the natural course. The rapid conversion of blood cultures from positive to negative suggests that the penicillin was responsible for the rapid improvement and cure.

In the second case treatment was started late in the disease and the favorable temperature response may have been a reflection of the natural evolution of the disease. However, we believe that penicillin had a beneficial effect because of the prompt improvement of the patient's clinical condition, (reduction of "toxemia"), and the permanent reversal of cultures. Clinically, the penicillin seemed to be of great benefit in this case. This patient's response is considered only "presumptive" evidence that penicillin is of therapeutic value in the treatment of typhoid fever.

The third case seems to be definitive. The conversion of urine cultures from positive to negative immediately after therapy was begun is very strong evidence that penicillin was responsible for elimination of the infection. The problem of eliminating the carrier state is one of considerable importance. Many different technics[4, 16, 17, 18] directed toward this end have been tried. All have met with indifferent success. Although there is no proof that this man was a chronic typhoid carrier, there is good reason to believe that he had been shedding typhoid organisms since his acute infection in 1915, thirty-five years prior to his admission at our hospital. This case encourages one to hope that penicillin may be an effective treatment for some typhoid carriers. Clinical trials to test this hypothesis are in progress.

These three cases and one reported previously[12] constitute a small body of clinical evidence to support the observations that: (a) strains of *S. typhosa* are sensitive to penicillin if large enough amounts of penicillin are employed, and (b) that severe typhoid fever can be successfully treated with penicillin. It should be emphasized that the use of Benemid† in conjunction with the doses of penicillin gave the patients the same benefit (in terms of elevated penicillin plasma concentrations) as might have been anticipated if the penicillin dose had been two to five times greater than that actually given.[19]

This small number of cases is not sufficient to establish penicillin as the treatment of choice for typhoid fever; but it is hoped that this report will stimulate interest among others to evaluate more fully this concept of therapy.

SUMMARY

1. Three cases of human typhoid infection have been successfully treated with penicillin. In two cases there is little reason to question the fact that penicillin effected the cures. The third case leaves some room for doubt.

2. The possible value of penicillin in eliminating the carrier state is illustrated by Case Number 3. Further studies to explore this possibility are currently in progress.

3. Penicillin in adequate dosage is capable of eliminating typhoid infection in man. The prompt elimination of *S. typhosa* from the excreta of penicillin-treated patients offers the possibility of a much shorter period of nursing care and consequently a great financial saving to both patient and community.

4. These cases are presented in the hope that other investigators will be encouraged to study the use of penicillin in the treatment of *S. typhosa* infections. Benemid† is a valuable adjunct to penicillin therapy and was an integral part of the schedules of treatment used in this study.

The authors are indebted to Dr. Harrison F. Flippin, Dr. William G. Leaman, Dr. Charles M. Thompson, Chiefs of Medicine, Philadelphia General Hospital, for permission to treat their patients.

The cooperation of Dr. G. M. Eisenberg, Division of Bacteriology, Philadelphia General Hospital, is gratefully acknowledged.

The penicillin used in this study was supplied by Dr. Charles E. Mann, Heyden Chemical Corporation, Princeton, N. J.

3400 Pine Street

SYMPOSIUM ON CARDIOVASCULAR DISEASES

The New York Academy of Medicine will hold its annual Graduate Fortnight from October 8 to 19, 1951, in collaboration with the New York Heart Association on the subject, Disorders of the Circulatory System.

The program will include morning panel discussions, afternoon clinics, evening lectures, scientific exhibits and demonstrations. For further details, write to the Academy at 2 E. 103 Street, New York 29, N. Y.

EENT RESIDENCIES AVAILABLE

Approved residencies in ophthalmology and in otolaryngology are now available at the Eye and Ear Infirmary, 77 Central Avenue, Newark 2, N. J. For details write to: Chairman, Resident Committee, at that address.

16. Viachulis, J. A., Littman, A., Ivy, A. C., Zubowicz, G., Kaplan, R.: Annals of Internal Medicine, 33:361 (1950).
17. Comerford, C. H., Kay, W. W., Richmond, H.: Lancet, 2:343 (1946).
18. Littman, A., Vaichulis, J. A., Ivy, A. G.: Journal of Laboratory and Clinical Medicine, 34:549 (1949).
19. Boger, W. P., Beatty, J. O., Pitts, F. W., and Flippin, H. F.: Annals of Internal Medicine, 33:18 (1950).

MODERN CONCEPTS OF THE ANOVULATORY CYCLE

WERNER STEINBERG, M.D., Linden, N. J.

Female infertility has become one of the major challenges to the modern gynecologist. The lay press has been full of articles on the subject, and the public has been clamoring for aid in barren marriages. Anovulatory bleeding has developed into one of the main factors in infertility studies. Reading the literature of about 30 years ago, one is led to believe that an anovulatory cycle which had been known in monkeys since Van Herwerden's classical article[1] had been regarded as extremely rare. However, after the ingenious studies of Hartman,[16] Corner[17] and Novak,[18] it became more and more evident that this does occur in the human female and with more frequency than heretofore assumed. The author having studied many cases of sterility himself is inclined to agree with Hamblen[2a] who quotes an incidence of about 15 per cent from his clinic. Novak[3] found in 142 cases of sterility, an incidence of 39 cases of anovulatory failure which corresponds to a ratio of 27 per cent. Novak[3] remarks that "this high proportion is to be explained by the fact that a great many of these patients had been studied elsewhere, and the more obvious factors, such as male sterility and tubal nonpatency, eliminated". Mazer,[4] in 1932, reported studies on 41 sterile women who apparently were menstruating regularly. He found that about 50 per cent had an anovulatory cycle. Even if one takes 15 per cent as an average, its frequency is appalling. Since this paper deals mainly with the application of anovulatory bleeding to female sterility, no mention is made of the adolescent girl and the menopausal woman. We will review only the diagnosis of anovulatory failure in women during their reproductive years. Treatment will be touched in a cursory manner. The term "anovulatory menstruation" will be avoided. The average woman regards any bloody discharge from the vagina as "menstruation" whether this is due to a submucous myoma, an endometrial polyp, or any other uterine pathology. It is not meant to be disrespectful to the Bible which Novak[3] brings forth as the reason for adhering to the term "menstruous", but it is felt that to do so would enhance the already existing confusion.

Anovulatory cycle previously has been defined as failure of rupture of the Graafian follicle, (and therefore, failure of corpus luteum formation) with subsequent persistence of the proliferative phase of the endometrium. This persistent proliferative phase can be demonstrated through an endometrial biopsy, done either two days before or on the first day of menstruation. The couple should use some contraceptive device while the investigation is going on, in order to prevent the destruction of an early pregnancy by this procedure. There are variations from the hitherto accepted definition of the anovulatory cycle, and the term "anovulatory bleeding" should be applied only under very special circumstances.

The theory of Robert Meyer[6] that "anovulatory bleeding represents a premature interruption of the menstrual cycle", leads to a classification of anovulatory failure into three subdivisions:

I. Anovulation without corpus luteum formation ("True anovulatory bleeding")
II. Anovulation with subsequent corpus luteum formation ("Luteinization of the 'egg-less' follicle")
III. Ovulation without subsequent corpus luteum formation ("Postovulatory, early secretory arrest")

All three patterns exist in the human female. Although they might not have been observed on the female monkey, too much emphasis has been placed on translating the results from observation of experimental animals into clinical gynecology, a view to which Meyer[6] subscribes. The experimental physiologist has other criteria to determine the anatomic state of the ovaries during and after ovulation of the monkey. He does this by rectal palpation or by repeated laparotomies. Modern gynecology also has certain methods for ascertaining the

time and frequency of ovulation. This is done either by study of temperature charts, or in selected women, from the occurrence of the "Mittelschmerz".

TRUE ANOVULATORY BLEEDING

This is the classical example of the anovulatory cycle. Endometrial biopsy will show an early or late proliferative phase or proliferative hyperplasia of the endometrium. A woman in this group does not show any rise in temperature during the middle of the cycle, nor does her vaginal smear exhibit the transition from the fully cornified into the luteal phase. These patients do not show any other evidence of ovulation. Yet, in following up those women, over a long period of time, one is surprised by the regular rhythm in which the bleeding episodes appear. Corner[7] has shown that this type of bleeding can be explained by estrin deprivation. Meyer[6] feels that it occurs at the time when ovulation should have taken place and thus, it is said to happen around the 14th or 15th day of the cycle.

This has not been my experience. Anovulatory cycles may be interspersed with normal menstrual cycles as shown by Novak.[8] These women are capable of establishing a normal rhythmic cycle; if a biopsy is taken which does not show a late* secretory phase at the onset of bleeding, we may classify this episode as anovulatory. The phenomenon which Meyer[6] describes really belongs in the category of "functional bleeding" which is not going to be dealt with in this paper. Thus, a diagnosis of permanent anovulatory failure cannot be made except by biopsies repeated at least 5 or 6 times consecutively. In performing these biopsies, I use my own suction curet which has been described in another publication.[14] In carrying out these repeated examinations, one will find many women formerly classified as anovulatory bleeders may have on one or several occasions, perfectly normal ovulatory cycles. For that reason, I do not share the gloomy outlook of one sterility expert who was asked at a meeting of the New Jersey Obstetrical and Gynecological Society about the treatment of anovulatory menstruation. His answer was "adoption!" The prognosis will depend largely on whether anovulation is a permanent feature (which is often accompanied by amenorrhea), or whether it occurs only sporadically. Results of treatment, even with intravenous injections of chorionic gonadotropins, have not lived up to expectations, but in those women whose cycles are only "sometimes" anovulatory, pregnancy may ensue even without treatment.

In this group, another type of patient deserves mention, though from a practical point of view, it will be most difficult to demonstrate more than an occasional case here and there. Mazer[4] describes a woman whom he had studied because of sterility. He performed a premenstrual curettage simultaneously with an appendectomy 23 days after the onset of her last period (she had a 21 to 25 days cycle), and on laparotomy found a fresh corpus luteum which he removed. The endometrium, however, showed only a proliferative phase. Mazer[4] felt that this was due to an "inherent or acquired lack of endometrial responsiveness to the ovarian hormones". One may not always be as lucky as that in finding such a coincidence on laparotomy. But those cases may be more frequent than we believe, and it is possible that all cases later described in group III might be of this type. It is hoped that Decker[9] will soon improve his most useful culdoscope which will enable the investigator to take ovarian biopsies without having to subject the patient to a laparotomy.

LUTEINIZATION OF THE "EGG-LESS" FOLLICLE

There is clinical evidence that this pattern exists: patients who do not exhibit any temperature rise during the middle of the intermenstruum, yet who are able to produce a secretory endometrium. An explanation has been given by Zondek.[10a] He quotes Fee and Parkes who proved experimentally that rupture of the follicle in the rabbit (which takes place after copulation) can be brought about only in the presence of the pituitary gland. "If the rabbit is hypophysectomized within one hour after copulation, ovulation is prevented; if hyperphysectomy, however, is done later than one hour after mating, oculation occurs, as usual, 10 to 12 hours after copulation, and corpora lutea are formed." These experiments tend to prove that the maturing follicle *per se* does not bring about corpus luteum formation, but

* I wish to place special emphasis upon the word "late". My criteria for a full progestational phase are; (1) Saw-tooth appearance of the endometrial glands; (2) Nuclei of the lining epithelial cells must have returned to the base; (3) Glycogen must be demonstrable in the lumina of the glands, as well as in the cells; and (4) There must be a loose and edematous stroma without mitoses in the stroma cells.

that a substance is liberated through copulation in the pituitary which effects rupture of the follicle and formation of the corpus luteum. Zondek[10a] adds that the egg, as such, is unnecessary in the formation of a yellow body, but that the latter depends solely on the presence of Prolan B in the blood. If these experiments have their analogy in the human female, it is absolutely possible that luteinization of the endometrium may occur without ovulation. These women are sterile in spite of the fact that (on endometrial biopsy shortly before menstruation), they present an endometrium in the secretory phase.

POSTOVULATORY OR EARLY SECRETORY ARREST

These are the ones who most likely will produce habitual abortion. They are most amenable to treatment. Strictly speaking, they should be taken out of the classification of anovulatory bleeders; but until now, they were considered as such because of their failure to produce a secretory endometrium before menstruation. Meyer[6] describes a 25 year old patient whose periods have always been regular.

"For one year, following an abortion, the menses were irregular. A curettage was done on the second day of bleeding which started 18 days after the beginning of the last period. The surface everywhere had been cast off; the remaining endometrium was in decay. The glands were moderately tortuous, and the epithelium contained glycogen in the upper part of the cells. I believe that this case constitutes a premature interruption of the cycle in the early secretory phase."

These women clearly show (the author had a similar case) an early secretory arrest, which must have been caused by a quantitatively insufficient amount of progestation. Hamblen[2b] terms this syndrome "hypoprogestinism or relative progestin deficiency", and has found as characteristic a "patchy ripening of the endometrium". This has also been my experience. These patients may exhibit bleeding at an early point of the cycle, such as the case cited by Meyer,[6] or they may bleed around their cycle time such as in my own case. These women are sterile because their insufficient progestin production renders the endometrium unsuitable for nidation of the fertilized ovum; or they may become habitual early aborters.

The second class of women with ovulation, but without any subsequent progestin formation, are those who do not show any secretory transformation of the endometrium at all at the onset of bleeding. I observed three cases of this type who presented an absolutely perfect temperature curve and who had a fairly regular bleeding cycle, yet who on endometrial biopsy, manifested a late proliferative phase. Novak[3] seems to have made the same observation that bleeding in anovulatory cycle may be just as rhythmic as that in normal ovulatory menstruation; and it may be normal in amount and duration. Two of my patients sought medical advice because of three consecutive, spontaneous abortions, whereas the other one had not been pregnant at all. One of the women, besides having a normal temperature curve with ovulation about the 16th day, also had "Mittelschmerz" which corroborated the fact that she actually was ovulating. Since all three patients had a late proliferative phase at the onset of bleeding, one has to assume that they were suffering from a complete lack of progestin production and thus showed a "postovulatory arrest". Meyer[6] is correct in stating that the menstrual cycle may be interrupted at any point which in those patients would be after ovulation. Novak[3] shares the same opinion. He says that "bleeding can occur from almost any histologic type of endometrium". It also follows that between this group and that with "early secretory arrest", there only is a quantitative difference as to progestin production.

None of these endometria contained glycogen which might be expected, since it constitutes part of the normal secretory phase. Not enough attention has been paid to routine glycogen staining of endometrial biopsy sections. In making this an integral part of every sterility study, the doctor could derive much valuable information. The only change one has to make in carrying out the Best's carmine stain for glycogen, is to fix the endometrial scrapings in absolute alcohol instead of the usual formalin solution. Zondek and Stein[11] have coined the term "glycopenia uteri" after having determined the glycogen content of 49 en-

dometria by microchemical methods. They found that 18 per cent showed a lowered glycogen content, and thus felt that this was an important reason for sterility. We do not know whether glycogen formation in the endometrial epithelium is directly depending on the action of progestin, but the lack of it may be responsible for many very early, habitual abortions, and thus be a contributing factor to infertility.

Patients in this third group have proved to be more amenable to treatment than all others. The two cases of habitual abortion are pregnant at this time; but instead of treating them with daily injections of an estrogen-progestin mixture, they were implanted with two pellets of 50 milligrams of Progesterone† at monthly intervals. The pellet implantation with Progesterone† still presents some technical difficulties in some patients. The medication may cause some local reaction in certain women which prevents a primary union of the incision. However, experiments are now in progress to envelop the pellets in different materials to prevent this reaction. I have chosen this method of Progestin† administration, because I have not been as fortunate as Jones and Te Linde[19] who gave 400 to 500 milligrams of pregneninolone over a period of seven days; this amount, they say, is sufficient to produce secretory changes in the endometrium. Greenblatt and his colleagues[13] have not been able to confirm this.

It is too early to draw any conclusions from so few cases, but it may be said that the pregnancy of the two patients is continuing at the time of this writing. It is hoped that pellet implantation will provide a steady supply of progestin to preserve pregnancy, because as Browne, Venning, and Henry[12] have pointed out, "even with daily injections, there is a constant rise and fall of the progestin level". Thus, the use of pellets, as recommended by them[12] would be the treatment of choice, once the technical difficulties are surmounted.

CONCLUSIONS

(1) The term "anovulatory bleeding" embraces three categories:

(a) Anovulation without corpus luteum formation: this represents the typical anovulatory bleeders who do not show any rise of temperature in mid-cycle, and who do not present a late secretory phase of the endometrium at the onset of bleeding.

(b) Anovulation with subsequent corpus luteum formation. Ovulation is unnecessary for corpus luteum formation, and women may be "anovulatory" in spite of a secretory endometrium at the onset of bleeding.

(c) Ovulation without subsequent corpus luteum formation: it is believed that the cycle of these patients has been arrested after ovulation, and that failure of producing a secretory endometrium is due to hypoprogestinism.

(2) Glycopenia uteri is discussed as a possible factor in sterility.

(3) Implantation of Progesterone† pellets is recommended for the treatment of patients in group 1c.

NOTE: After this paper had been written, a study by Wong, Engle and Buxton[15] was published which re-emphasized a number of points mentioned in this article.

35 Gesner Street

BIBLIOGRAPHY

1. Van Herwerden, M.: Beitrag zur Kenntnis des menstruellen Cyklus, Monatschr. f. Geburtsh. u. Gynaekol., 24:730 (1906).
2. Hamblen, E. C.: *Endocrinology of Woman*, 4th printing, Springfield, Ill., Charles C. Thomas, 1949, (a) p. 329; (b) p. 327.
3. Novak, E.: American Journal of Obstetrics and Gynecology, 37:605 (1939).
4. Mazer, C., and Israel, S. L.: *Menstrual disorders*, 2nd ed., New York, Paul B. Hoeber, Inc., 1946, p. 408.
5. Schroeder, R.: American Journal of Obstetrics and Gynecology, 51:155 (1928).
6. Meyer, R.: American Journal of Obstetrics and Gynecology, 51:39 (1946).
7. Corner, G. W.: American Journal of Obstetrics and Gynecology, 38:862 (1939).
8. Novak, E.: *Textbook of Gynecology*, 3rd ed., Baltimore, Md., Williams & Wilkins Co., p. 76 (1948).
9. Decker, A.: Personal communication to the author.
10. Zondek, B.: *Hormone des Ovariums und des Hypophysenvorderlappens*, 2nd ed., Vienna, Julius Springer, (a) p. 320; (b) 212 (1935).
11. Zondek, B., and Stein, L.: Endocrinology, 27:395 (1940).
12. Browne, J. S. L., Venning, E. H., and Henry, J. S.: *Progress in Gynecology*, Vol. II, New York, Grune & Stratton, p. 250 (1950).
13. Greenblatt, R. B., *et al.*: Journal of Clinical Endocrinology, 10:886 (1950).
14. Steinberg, W.: Journal of the International College of Surgeons, 14:615 (1950).
15. Wong, C., Engle, A., and Buxton, B.: American Journal of Obstetrics and Gynecology, 60:790 (December 1950).
16. Hartman, C. G.: Anatomical Record, 35:13 (1927).
17. Corner, G. W.: Contributions to Embryology, 15:73 (1923).
18. Novak, E.: Journal of the American Medical Association, 94:833 (1930).
19. Jones, G. E. S., and Te Linde, R. W.: American Journal of Obstetrics and Gynecology, 57:854 (1949).

† The author wishes to express his gratitude to Dr. Norman L. Heminway of the Schering Corporation, Bloomfield, N. J., for the supply of pellets of Progesterone (Schering).

ACETOXYPREGNENOLONE* IN GASTRO-INTESTINAL CARCINOMA WITH METASTASES

N. Van S. Myers, M.D., Tenafly, N. J.

Sex steroids have been widely and successfully used in the palliative treatment of carcinoma of the breast,[1] prostate,[2] and other sex-specific tissues, particularly in the presence of bony metastases. Carcinomas primary to other tissues have been reported[3] to respond less favorably to sex steroid hormone therapy. However, when pregnenolone and acetoxypregnenolone* were made available in clinically ample quantities as substitutes for the less readily accessible cortisone and ACTH, it was decided to use acetoxypregnenolone in a case of adenocarcinoma of the sigmoid colon with metastases to liver and other viscera. In addition to this patient from author's private practice, reports are made here of two similar cases from the practice of Dr. Paul C. Morton, of New York City and Englewood, N. J., to whom I gratefully acknowledge permission to present his confirmatory cases. The diagnosis in one of these cases was also adenocarcinoma of the sigmoid colon with metastases to liver and other viscera; the other was adenocarcinoma of the stomach with involvement of lymph glands. Under acetoxypregnenolone therapy these three patients lived in comparative comfort for 22, 9 and 16 months, respectively—periods far beyond expectations, based upon the experience in similar cases. Most striking were control of pain, continued feeling of well-being, and ability to carry on usual activities almost to time of death.

CASE REPORTS

Case No. 1: Married white female, aged 37 years. She was a professional psychologist and remained hopeful, cheery and happy, practically free from pain and able to do housework almost to the end. On April 28, 1949, she reported, complaining of pain in lower abdomen and rectal bleeding.

The present illness began with constipation in 1942 which had become much worse in the past 6 months. Laxatives were taken almost daily. Two years previously bright red blood had appeared in the stool. She said that the blood seemed to be "around", rather than "within", the stool. Borborygmus had increased greatly within the last two months.

She was a well developed, young female 5 feet 6 inches in height, weighing 134 pounds. General physical examination was negative. Rectal examination showed two small skin tabs at 6 and 8 o'clock, and hypertrophied anal papillae at 3 and 5 o'clock. By sigmoidoscopy no lesions were seen in the upper rectum or the lower sigmoid. Barium enema, however, revealed an obstructive lesion in the midsigmoid area.

On May 12, 1949, by operation at Englewood Hospital through a left lower rectus incision, a large mass surrounding the middle portion of the sigmoid was seen involving the left tube and ovary. It was thought at that time that the mass was a ruptured diverticulum, and a drain was inserted. The wound was closed, and cecostomy performed. Biopsy of the mass showed fatty tissue with inflammatory reaction.

On June 24, 1949, exploratory operation showed that the original mass had decreased in size. It was now thought to be an adenocarcinoma. Two nodules were palpable in the liver, one in the right dome 5 centimeters in diameter, and the other on the under surface of the left lobe 2 centimeters in diameter. Transverse colostomy was done.

On July 14, 1949, following sulfathalidine medication, resection of the midsigmoid with primary end-to-end anastomosis was performed. Six inches of the bowel were resected with approximately 2 inches of normal bowel on each side of an annular constricting carcinoma involving the entire thickness of the bowel wall and some of the mesentery. Two weeks later, barium instilled into the colostomy opening showed a constriction at the site of the anastomosis with a narrowing of the lumen to approximately 4 millimeters. On July 30, the previous anastomosis was resected and another end-to-end anastomosis with two rows of sutures was performed. The cecostomy was closed.

On August 20, she was discharged from the hospital with the transverse colostomy functioning well. She was readmitted on October 3 for closure of the transverse colostomy. A week later she was discharged with bowel functioning normally and with a weight of 123 pounds. She continued to improve at home until April 1950.

On April 5, 1950, her weight was 144 pounds. She complained of pain and tenderness in the lower left quadrant. A mass was palpable in the lower abdomen extending 6 centimeters above the pelvic brim. She complained of pain, nausea, and occasional vomiting. The mass grew rapidly.

On April 29, 1950, acetoxypregnenolone* was given intramuscularly, 100 milligrams daily for one month, then 200 milligrams, three times a week until September 15, 1950. On that day the dosage was changed to 300 milligrams twice a week.

1. Adair, F. F. *et al.:* Journal of the American Medical Association, 140:1193 (1949).
2. Huggins, C.: Science, 97:541 (1943); also, Okie, M. V. *et al.:* New York State Journal of Medicine, 51:637 (1951).
3. Rhoads, C. P.: Journal of the American Medical Association, 136:305 (1948).

*Acetoxy-Prenolon, Schering was supplied by Dr. W. H. Stoner, Division of Clinical Research, Schering Corporation, Bloomfield, New Jersey.

Weight at this time was 101 pounds. The abdomen was markedly distended, about the size of a full-term twin pregnancy. There was a hard nodular mass involving the entire abdomen. The bowels continued to move regularly. Her extremities resembled those of a skeleton. Yet, she was cheerful, almost without pain, and able to do a moderate amount of housework. This condition was maintained until February 1951. By January 10 her weight was down to 105 pounds.

By February 14, 1951, symptoms of partial obstruction had developed. Nausea and vomiting had been well controlled until this time. The partial obstruction was relieved spontaneously and was followed by an intractable diarrhea. In addition to 300 milligrams of acetoxypregnenolone* twice a week, it was necessary to administer morphine for relief of abdominal pain from February 15, 1951, until her death on March 4, 1951.

Certainly this patient's condition for many months was far better than could customarily be expected by comparison with similar patients without acetoxypregnenolone* therapy.

Case No. 2: A white male, was admitted to St. Luke's Hospital (New York City) with diagnosis of adenocarcinoma of the sigmoid colon. On March 29, 1950, at operation, a small lesion of non-stenosing character was demonstrated. The liver was studded with a great number of metastases. There were no metastases at this time in the peritoneum nor elsewhere in the abdomen. Resection of the sigmoid with end-to-end anastomosis and with complementary cecostomy was performed. On April 19, the cecostomy was closed and the patient did very well until the middle of May. Then malaise, nausea, and persistent vomiting developed. He was given 100 milligrams of acetoxypregnenolone* daily for 28 days. Under this therapy nausea and vomiting were markedly decreased, although occasional morning nausea persisted. He returned home and was given acetoxypregnenolone* 100 milligrams three time weekly for one month. During this period of therapy there were definite sense of well-being and freedom from pain.

With discontinuance of therapy, nausea and vomiting appeared, in addition to marked jaundice. These symptoms increased and were pronounced at the time of death in December 1950.

Nausea and vomiting were alleviated to a great extent and there was less pain and a better sense of well-being during the period when acetoxypregnenolone* was being used.

Case No. 3: A white male, aged 57, with a diagnosis of adenocarcinoma of the stomach with involvement of lymph glands, was admitted to St. Luke's Hospital in May 1949, for operation. Recovery was satisfactory until November 1949, when he began to lose weight; his appetite was poor, and at Christmastime he had considerable nausea and vomiting and could eat very little. On January 3, 1950, he was readmitted with repeated attacks of most distressing nausea, vomiting and regurgitation. He continued to lose weight.

On February 1, 1950, acetoxypregnenolone* 100 milligrams were given daily for 22 days. Almost at once a sense of well-being was established, he was able to get out of bed, and his appetite improved so that he could eat five small meals a day. On February 23, 1950, the supply of pregnenolone was exhausted and for six days, he was without this therapy. The nausea, vomiting and regurgitation returned to a marked degree.

On March 1, 1950, acetoxypregnenolone* 100 milligrams daily was resumed and continued for 42 days while the patient was in the hospital. Nausea and vomiting were again controlled and the sense of well-being returned. On May 5 he went home, showed steady deterioration and was given injections of pregnenolone 100 milligrams three times weekly for another month. During this period, and to the time of his death in September 1950, nausea and vomiting were minimal and his general condition was far more satisfactory than one would expect.

Two cases of adenocarcinoma of the sigmoid colon and one of the stomach, all with extensive metastases, treated with parenteral acetoxypregnenolone,* are presented. In all three cases, nausea and vomiting were controlled. Capacity for usual pursuits, sense of well-being, and absence of pain continued almost to time of death. All of these patients survived much longer than would be otherwise expected in cases with metastases so extensive.

136 Engle Street

ESSEX COUNTY GRADUATE PROGRAM

A preliminary listing of the Essex County Medical Society Graduate Program, beginning in October 1951, is now available. Courses are offered from 4:00 to 6:00 p. m. weekdays, and from 9:00 a. m. to noon on Saturdays. The following courses will be available: proctology, gastro-enterology, unipolar lead electrocardiography, gynecology, regional anesthesiology, cardiology, surgical anatomy of the chest, surgical technic and principles of abdominal surgery, surgical pathology, gynecologic pathology, vascular surgery, biochemistry, endocrinology, internal medicine, electrocardiography, dermatology, and radio-physics and diagnostic roentgenology.

For further information write to Director, Graduate Medical Education, Seton Hall University, 40 Clinton Street, Newark 2, N. J.

EDUCATION FOR HEALTH

ROBERT B. MARIN, M.D., Montclair, N. J.

In reply to the routine question, "How often do you see a dentist?", the average person will answer that he sees his dentist once or twice a year. But when asked how often he sees a physician, his answer will range from a simple "When I am sick" to an insulted, "What do you think I am, a hypochondriac?" While a large proportion of our population realize the importance of regular dental care, few consult a physician with equal regularity. Furthermore, the average layman's idea of a complete physical examination is an appalling admission of antiquity in thought and knowledge. This ignorance is not confined to the financially needy who seek help but permeates through all social and economic classes.

The oriental theory, that you should pay your doctor primarily to keep well, is an excellent one. The dental profession, for example, has made good use of it, and in doing so earned a new found and well deserved eminence. Nothing has done more to improve dental health in the United States than education of the patient to periodic dental supervision.

The teeth represent about one per cent of a complex and delicately organized machine, subject to constant variations in physical and emotional stress, and affected by a variety of social and economic changes. What to do about the remaining 99 per cent of our body is today's sixty-four dollar question. In spite of tremendous scientific advances and the eradication or control of many diseases, we are faced with an increasingly sick public. This is further emphasized by the fact that people live longer, and have, therefore, more time in which to develop all types and varieties of illnesses. Properly, their care is our constant concern. Should we not, however, be equally concerned with the *potentially* ill?

To care for the mounting sickness ratio in all age groups, the United States is currently spending millions of dollars a year in special drives for special diseases, bigger hospitals, and bigger medical centers. Our major expenditures are directed toward the treatment of established illness, rather than its early detection or prevention. Yet, education of our people to periodic health examinations would do more than any other single action to lessen the incidence, and therefore, the progress of illness.

The conclusions of the American Cancer Society respecting the aid of periodic physical examinations in detecting cancer are applicable to any disease and the continued health of the individual. According to the American Cancer Society, "Nearly one half of our annual 180,000 cancer deaths could be avoided through prompt diagnosis and treatment". From the meager statistics available, it is fair to state that about 10 to 15 per cent of our population receive some type of yearly health examination. These include: health examinations of school children, health examinations of infants and pre-school children, and industrial examinations. The pertinent fact is that not more than one per cent of our population visit their doctor with voluntary planned regularity, and only a small ratio of this small group receive the type of periodic health supervision and care dictated by modern medical needs.

Physicians experienced in the field of preventive medicine feel that the periodic supervision of the aging process with accompanying early detection and treatment of any disease process would obviate a substantial proportion of hospital admissions both medical and surgical. Also a program of voluntary periodic health examinations advocated on a national scale by the entire profession would (1) effect substantial savings in the amount spent for medical care, (2) materially reduce hospital admission, (3) eliminate the need for expansion of hospital facilities beyond that required by the increase in population, and (4) immeasurably improve the health of the entire nation through the physiologic, psychologic,

and factual well being that the assurance of periodic health care would give to the individual.

To make each doctor's office an individual unit in the fight for better public health, a medical maturity regarding preventive medicine is needed by both laity and medical profession. The answer lies in education, not socialization. Many will question both the fundamental soundness and practicality of the idea of widespread periodic health examinations of well persons, but a dedication of even a small part of the effort and time of physicians to the advocacy of such a program and to the administration of true and adequate preventive medicine would demonstrate the soundness of this concept. It would enormously benefit our patients, our communities, and ourselves.

85 Park Street

VITAMIN D POISONING

The dangers and toxic effects among patients who take excessive amounts of vitamin D are discussed in the January 1951 issue of *The American Journal of Roentgenology and Radium Therapy*. The authors are William R. Christensen, Charles Liebman and Merrill C. Sosman, all of Boston.

Development of toxic effects from vitamin D requires dosage up to 500,000 units per day. The vitamin is usually prescribed for arthritis, rickets, conditions involving softening of the bones and in allergies. Small doses of vitamin D usually cause no harmful effects.

When poisoning occurs there is a decrease in bone density, abnormal deposits of bone salts and excessive excretion from body of calcium and phosphorus.

Vitamin D poisoning presents a very puzzling picture to the physician in making a diagnosis.

"It is apparent," the authors write, "that many persons have used vitamin D in widely varying amounts. A few have developed toxic symptoms on low dosage while others have taken large amounts without apparent difficulty. The number of factors which may affect the potency of a given dosage of vitamin D are surprisingly high."

These factors were listed as duration of administration, calcium and phosphorus intake. age of patient, activity of patient, method of administration, state of alimentary tract and the endocrine system, kidney function and the presence of rickets.

"To these," they said, "may be added the state of the skeletal system, environmental temperature, the intake of fat, the intake of mineral oil and the presence of bile.

"If the efficacy of any given dose schedule can be affected by so many factors," they added, "it is not surprising that the variation in individual susceptibility is so great. Any combination of these factors may render any given patient especially vulnerable or markedly resistant."

Symptoms of vitamin D poisoning include: nausea, urinary frequency, diarrhea, gastrointestinal pain and vomiting. Kidney damage and bone calcification are very common, and many deaths have been reported.

The authors present five cases. In one, that of a 62 year old school teacher, the symptoms improved after vitamin D was discontinued and the patient was placed on a low calcium diet. One year after treatment, x-rays showed considerable decrease in soft tissue calcium deposits and some healing of the abnormal bone in the left shoulder.

NEW JERSEY RHEUMATISM ASSOCIATION OFFICERS

The following officers were elected at the annual meeting of the New Jersey Rheumatism Association on May 16, 1951, in Atlantic City:

President—
Dr. Clarence B. Whims, Atlantic City

Vice-President—
Dr. Henry S. Urbaniak, Trenton

Secretary—
Dr. Peter J. Warter, Trenton

Treasurer—
Dr. Irving L. Sperling, Newark

Jour. Med. Soc. N. J.
July, 1951

ECLAMPSIA

The Maternal Welfare Committee

This is the case of a sixteen year old prima gravida with normal physical and laboratory findings up until the seventh month of her pregnancy. When seven and a half months pregnant, her physician noted that her blood pressure readings had climbed from 115/70 to 135/90. Urine showed a faint trace of albumin. At her next visit, two weeks later, the patient's blood pressure was 145/90 and the urine had a plus one albumin. Weight gain during pregnancy had been 30 pounds. The patient was advised to get more rest and to restrict salt. Three days later she was admitted to the hospital in eclamptic convulsions. After admission, convulsions were occurring every ten minutes for the first half hour until controlled with heavy sedation and intravenous magnesium sulphate solution.

The attending physician stated, "that because of the severity of the toxemia it was decided to terminate the pregnancy as rapidly as possible". A caesarian section was performed within the next two hours, under open-drop ether anaesthesia. A stillborn infant was delivered. The patient left the operating room in much the same condition that she had entered it, still suffering from acute toxemia. She had no more convulsions, but never aroused from the stuporous condition in which she had been admitted to the hospital. Urine showed a heavy albumin concentration. Blood pressure ranged around 150/100. The patient's condition became steadily worse despite concentrated glucose solution by vein. The patient died twenty hours after operation. There was no autopsy.

DISCUSSION

Question: What was the cause of this woman's death?

Answer: The patient was "signed out" as toxemia of pregnancy, eclampsia. Whether the immediate cause of death was cerebral hemorrhage, uremia, liver necrosis, we do not know; perhaps a combination of all.

Question: Would this patient have died if she had been admitted at the time of her last visit to the doctor's office?

Answer: When a patient's toxemia develops to a point of convulsions, the mortality is about ten per cent. As a "pre-eclamptic" under adequate treatment, mortality is much less. In other words, chances of survival would have been immeasurably improved by hospitalization and proper treatment while she was still a pre-eclamptic. The best treatment for eclampsia is to prevent it.

Question: Why was she operated upon so quickly after admission to the hospital? Were they not superimposing one injury upon another?

Answer: The best obstetrical clinics now advocate intensive medical therapy of the eclamptic patient until her convulsions have been controlled, her "nervous irritability" decreased and her internal chemistry restored to more normal levels before surgery is attempted. This intensive therapy may extend over several days, as a so-called "cooling-out preparation" before surgery is attempted. The eclamptic is suffering great physical injury. Her life hangs in the balance. The trauma of superimposed surgery may tip the scales against her possibility of recovery.

Question: Does this mean that it is not imperative that the eclamptic patient be delivered immediately?

Answer: It is imperative that the eclamptic patient first receives the most intensive therapy that medicine can marshal for her needs. The obstetrician must call upon all his medical knowledge of toxemia, and upon all his medical consultants. Surgical delivery falls in a later phase of treatment. However, this physician's first error was in not treating the patient as a pre-eclamptic. The development of eclampsia did not change the need for medical therapy, it only intensified it. Immediate surgery was not indicated.

In New Jersey during 1950, the death rate in all maternal cases was less than one in a thousand. The death rate in eclampsia is one in ten.

Eternal vigilance is the price of safety.

John D. Preece, M.D., Chairman.

STATE ACTIVITIES

THE READERS REVIEW THE JOURNAL†

In May the Publication Committee distributed a questionnaire to the 5115 members of the Society. Normal questionnaire response from the general membership in any organization averages 10 per cent. However by May 31, returns had been submitted by 1345 members, a ratio of 26 per cent, exceptionally high for a questionnaire of this type, and gratifying evidence of membership interest. Of the 1345, there were 677 (that is more than 50 per cent) who checked the square marked "I like THE JOURNAL substantially as it is now". Some of these, along with the other 668, also checked boxes suggesting some changes.

First, as to appearance. THE JOURNAL today has the same general format and cover appearance that it has had for almost half a century. Most state journals have changed their covers, added color, and streamlined the general format. But THE JOURNAL of The Medical Society of New Jersey has maintained the same yellow[1] cover, lay-out, and general appearance that it had when the first issue appeared in 1904. From time to time the Publication Committee has discussed modernizing the cover. When Dr. Davidson became editor in 1941, he made that suggestion to the Committee at its first meeting after his appointment. It had been suggested before and has been recommended since. Usually the immediate reaction to the proposed change is favorable. It seems logical to alter something that has been unchanged since 1904. Then, on second thought, the Committee has always concluded that there is a sort of "trade mark" value in the traditional, even if slightly old-fashioned cover. May's questionnaire was the first opportunity to tap general membership opinion. Here is the score: 164 voted to change the cover; 404 said "no". That's better than two-to-one in favor of retaining the familiar cover. The figures in this group of questions were:

	Yes	No
Change the cover	164	404
A two-color cover	106	397
A modernistic cover	120	390
Advertisements on cover	27	512
Table of contents on inside	218	354

The overwhelming objection to putting advertising on the cover is interesting. Nearly all state medical journals, (and of course the J.A.M.A.) have ethical advertising on the front cover. This spot is so desirable that advertisers will pay a substantial premium for the space. Whenever printing and paper costs have sky-rocketed beyond advertising charges, (and that is the situation now) THE JOURNAL goes into the red a little. When that occurs, the suggestion is made that we sell advertising space on the front cover. The extra income would help towards converting THE JOURNAL'S activities into a profit operation. Nearly all state medical journals have had to accept front cover advertising for this reason. Your Committee has discussed this several times within the past ten years. Always it has elected to keep advertising off the front cover. The voting above indicates that this decision has met the approval of the members; 95 per cent of you have registered agreement with that decision.

Second, as to balance of content. The possible changes in balance, and the votes recorded are listed below. An asterisk (*) indicates the plurality sentiment.

	More	Fewer	As Is
Scientific Articles	*469	25	218
Editorials	114	89	*377
Book Reviews	128	129	*309
Medical-Surgical Plan	204	82	*298
Woman's Auxiliary	10	*268	260
Public Health News	103	107	*329
Trustees' Reports	79	144	*313
State News Items	175	66	*329

The only item which members wanted reduced was the Woman's Auxiliary section. (Many state journals give no space at all to this department). The only item which the members wanted expanded was the section devoted to original articles. For all other departments, the consensus was that the present balance was desirable. Your Committee will try to reflect these preferences as soon as it is editorially and mechanically possible to make the changes.

Third, as to possible new features. As indicated in the tabulation below, there was some

† Editorial comment on this analysis appears on page 301 of this issue.

1. Yes, we know that it's really buff—but everybody sees it as yellow.

preference for three new departments: letters to the editor; personal items; and historical notes. The other possibilities (cartoons, jokes and hospital staff notes) were rejected. (Asterisk indicates plurality sentiment).

Yes		No
*458	Letters to the editor	144
199	Cartoons	*365
156	Jokes	*376
*300	Personal items	264
*329	Historical items	229
254	Hospital Staff Meeting notes	*302

Your Committee breathes a sign of relief at the 156 to 376 vote against our running a "joke" column. There is something dismal about sweating out medical jokes, and even the long lived "Tonics and Sedatives" in the J.A.M.A. seldom lays the readers in the aisles. We are glad that there was no mandate for cartoons. In addition to the expense of making the cuts, there would have been difficulty in getting better gag-writers and cartoon-artists to produce material for us gratis. Commercial periodicals pay well for these items, and we could scarcely compete.

Apparently many of the members desire a "Letters to the Editor" column, and the Committee will certainly consider this. We did have such a column back in 1941, called "Hammer and Tongs". Trouble was that most of the letter writers were riding hobbies, crusading for a cause or bearing a torch. Indeed an uncharitable observer might say that many were crackpots. And there is no doubt that crackpots are great letter-to-the-editor writers. On the other hand, some letter-writers are men of good judgment passing on excellent ideas; or are temperate and reasonable critics of Society policy who have a right to be heard. There is some disagreement among publishers of house organs on this last point. Some argue that the official organ of any Society is not a proper forum for letters seeking to criticize established Society policy. Others feel that the traditions of free speech and free press require the opening of official organs to adverse opinion. Your Committee will study this and ask the Board of Trustees for instructions.

The expressed preference for a department of personal items will be explored at an early Committee meeting. Such a column would include all sorts of minor personal items—marriages, hospital staff promotions, new babies in doctors' families, et cetera. As rural newspapers have handsomely demonstrated, such paragraphs, though not of earth-shaking importance, are widely read, and help to maintain a sense of brotherhood within an organization. At first blush it would seem as if a Society of our size—more than 5000 members—had outgrown the possibilities of a personal column; but the matter will be further studied.

Historical items were used as filler material extensively during 1949 and 1950, and there was evidence then that the little paragraphs were widely read. Two-thirds of our respondents seem to desire a JOURNAL department on New Jersey medical history. It is doubtful if we could afford the space for a regular monthly section, but the Committee will instruct the editor to prepare or solicit historical papers from time to time.

Fourth, as to the type of scientific material in THE JOURNAL. "More articles dealing with treatment and practical clinical facts" was the demand of 675 readers, as opposed to only 58 who thought we needed no more in that category. However, this vote is, to some extent, neutralized by the score of 424 to 215 in favor of "more basic scientific and research papers". Together these two types of articles (basic science vs. clinical) constitute the bulk of medical journalism. Our readers apparently want more in both categories. How to reconcile these conflicting demands will be an item on the agenda of your Committee's next meeting.

Most of the respondents (469 out of 633) wanted all scientific manuscriptes referred to a panel of specialists before acceptance. This puts the finger on one of the most vexing problems in running a state medical journal. THE JOURNAL is for general practitioners primarily. Specialists are inclined to reject papers which seem elementary to them; yet those very articles may be just right for the G.P. Probably the compromise solution will be to have the specialist pass on the scientific accuracy and validity of the paper, while the Publication Committee will determine its acceptability. Experience both in our own and in other states has shown that to give a panel of specialists veto power over original articles is to exclude many excellent papers of value to the general practitioner.

Hundreds of members took the trouble to write in comments, suggestions and personal reactions. These comments will be analyzed in subsequent issues. The Committee is gratified at the high ratio of response and thanks all readers who returned their questionnaires. We will make every effort to shape our JOURNAL to meet your requirements.

THE PUBLICATION COMMITTEE.

TRUSTEES' MEETINGS

MAY 13, 1951

The following is a summary of the more important actions taken by the Board of Trustees at its regular meeting held on May 13, 1951, at Haddon Hall, Atlantic City.

Approval was given to the reports of the President and of the Executive Committee. Included in the report of the Executive Committee was the Policy Program for 1951-52 submitted by Dr. Sigurd W. Johnsen in his capacity as President-Elect. The program, which will be presented in detail in the August issue of THE JOURNAL, consists of six divisions: (1) Medical Practice, (2) Medical Education, (3) Legislative Problems, (4) Public Health, (5) Public Relations, (6) Society Organization.

Dr. Elton W. Lance, Chairman of the Special Committee on School Health, was designated as the representative of the Society to attend the Third National Conference on Physicians and Schools, which will be held at the Hotel Moraine, Highland Park, Illinois, November 6 - 8, 1951.

The report of the Special Committee on School Health, presented by Dr. Lance, was unanimously adopted. The report reflects the agreement of the Committee on the following points, which they consider as basic requirements for the satisfactory functioning of the School Health Council:

(1) The School Health Council requires greater participation and guidance by the medical profession.

(2) The sole purpose of existence of the Council is the promotion of the Four Point Program. Until such time as the original program has been fulfilled, further points should not be added.

(3) Because the Council is a body directly established by the Board of Trustees and is, for the most part, composed of representatives of lay organizations, some procedures should be devised to enable the Board of Trustees to maintain control of the Council.

It was the Committee's opinion that the work of the Woman's Auxiliary, who were originally requested to assist in establishing local county councils, is about completed.

To the end that the Medical Society may take a far more active part in the operation of the Council than it has hitherto, the Committee made the following recommendations to the Board of Trustees:

(1) That the School Health Committee be reconstituted as an Advisory Committee to the Subcommittee on Public Health, with a recommended membership of four.

(2) That Dr. Elton W. Lance be reappointed as Chairman of the Advisory Committee on School Health.

(3) That a member of the Advisory Committee be designated to serve as Chairman of the New Jersey State Council for the Improvement of School Health Services.

(4) That a second member of the Advisory Committee be designated to serve as an alternate member of the Council. (Note: This recommendation is presented as a substitute for the present requirement that the Chairman of the Advisory Committee on School Health serve as a member of the School Health Council.)

(5) That recommendations for membership on the Advisory Committee on School Health be submitted to the President by the Chairman of the Public Health Committee, after consultation with Dr. Lance and the Chairman of the Welfare Committee.

MAY 16, 1951

The reorganization meeting of the Board of Trustees was held at Haddon Hall, Atlantic City, on Wednesday, May 16, 1951. Dr. Crowe presided pending the election of a chairman for 1951-52.

Dr. David B. Allman, nominated for reelection by Dr. Schaaf and seconded by Dr. Costello, was the unanimous choice of the Board as its chairman.

Dr. Reuben L. Sharp was nominated for the office of secretary by Dr. Green, seconded by Dr. Murray, and unanimously elected.

The Board then accepted the resignation of Dr. Elton W. Lance, newly elected Second Vice-President.

Consideration was next given to the selection of a candidate for the vacancy on the Board of Trustees resulting from the resignation of Dr. Lance. Dr. C. Byron Blaisdell, of Asbury Park, was nominated by Dr. Schaaf, seconded by Dr. Murray, and unanimously elected to membership on the Board.

Dr. Lewis C. Fritts, Chairman of the Advisory Committee to the Woman's Auxiliary, presented the following recommendation from the General Assembly of the Woman's Auxiliary:

WHEREAS the work of our organization has grown to such proportions that it is not possible to accomplish the work desired in such active projects

as the rural health program, the public relations program, and the up-keep of the important records of our archives, the Board recommends that our membership consider and vote upon the establishing of a Central Office for the Woman's Auxiliary, set up in the Medical Society Building, 315 West State Street, Trenton, with a paid clerk or secretary, such clerk or secretary to work under the direction of the President of the Auxiliary. That this recommendation, if approved, be fully explained to the members of our Advisory Committee and a request be sent, by the Executive Board to the Board of Trustees and the Advisory Committee of The Medical Society of New Jersey for their consideration.

It was moved by Dr. Murray and seconded by Dr. Lance and unanimously carried that the Medical Society employ an office clerk to work under the jurisdiction of the Administrative Secretary, to fulfill the present requirements of the Woman's Auxiliary program; the salary to be determined by the existing salary schedule, and the cost of the program not to exceed an additional $3,000.00 for 1951-52.

DAVID B. ALLMAN, M.D.
NEWLY ELECTED A.M.A. TRUSTEE

With the election of Dr. David B. Allman to the Board of Trustees of the American Medical Association, for the second time in its long history, New Jersey has a representative in the governing body of the national organization.

As he assumes his new duties, Dr. Allman enters upon a new phase of a career already rich in attainments. Born in Philadelphia, Dr. Allman moved with his family to Atlantic City shortly after his birth. In that renowned resort city he has continued to reside. He attended the Atlantic City public schools and was graduated from the Atlantic City High School. In 1910 he entered Jefferson Medical College, which granted him his doctorate in medicine in 1914.

During World War I, Dr. Allman served as assistant surgeon at the United States Naval Hospital in Philadelphia. He is past-president of the Medical Veterans Section of the National Association of Military Surgeons of the United States. Dr. Allman has served as president of the Atlantic City Hospital staff and of the medical staff of the Atlantic County Hospital for Tuberculous Diseases. In 1917 he was made assistant fire and police surgeon of Atlantic City, and in 1927 he was given the rank of honorary police and fire surgeon. Because of his devotion to his duties in these positions, he has been made an honorary member of the New Jersey State Firemen's Association and the New Jersey Patrolmen's Benevolent Association.

Long active in the affairs of The Medical Society of New Jersey, Dr. Allman is presently Chairman of the Board of Trustees and Chairman of the Committee on Finance and Budget. He holds fellowships in both the American College of Surgeons and the International College of Surgeons. He is also President of the State Board of Medical Examiners.

His wife, the former Katherine May Bothwell, of Ottawa, Canada, is also distinguished for her activities in Medical Society affairs, having served as president of the Woman's Auxiliary to The Medical Society of New Jersey in 1944-45, and as president of the Woman's Auxiliary to the American Medical Association in 1949-50.

MEDICO-MILITARY SYMPOSIUM IN PHILADELPHIA

The week beginning October 22 has been fixed for the annual medico-military symposium at the Philadelphia Naval Hospital. The final session will be Saturday morning, October 27, and arrangements can be made for attendance at the Penn-Navy football game in Philadelphia that afternoon. The scientific program is compact, practical and star- studded. For further details, write to Medical Reserve Program Officer, District Medical Office, U. S. Naval Base, Philadelphia 12, Penna.

STAMP HONORS NEW JERSEY NURSE

A commemorative stamp honoring U. S. Army nurse, Clara Louise Maass will be issued by the Republic of Cuba on August 24, 1951. President Socarras of Cuba has authorized the emission of 3,000,000 copies in red, value 2 centavos. The size of the stamp will approximate that of U. S. commemoratives.

Nurse Maass, a graduate of Lutheran Memorial Hospital, Newark, N. J., Class of 1895, died in Havana, on August 24, 1901, at the age of 25 years, as a result of her voluntary submission to the bite of the *Stegomyia* mosquito, suspected by Dr. Carlos Finlay of carrying the virus of yellow fever. The only American to perish in the course of the experiments conducted by the U. S. Army, she, by her sacrifice, gave final proof to the truth of Dr. Finlay's thesis. This provided the medical knowledge which later enabled Dr. William C. Gorgas, under whose direction she had participated in the tests, to clear the tropics of the disease and bring the building of the Panama Canal to its successful conclusion.

A similar stamp has been requested of the U. S. Post Office Department by the American Nurses Association honoring Nurse Maass as a symbol of "The American Nurse in Peace and War". Congressman Hugh J. Addonizio

of New Jersey introduced a bill into our House of Representatives to that end.

Ernesto Dihigo, Secretary of State of the Republic of Cuba is forwarding a request from his government, to our Secretary of State suggesting that the U. S. Government issue the stamp together with Cuba as a gesture of mutual esteem and friendship. Dr. Dihigo states: "The great debt owed by humanity to this young and heroic nurse, her extraordinary abnegation and her unselfish spirit of sacrifice amply justify the proposed homage; for this reason we have deemed it proper to make an appeal to the government of the U. S. A. to win agreement with this sublime purpose".

SUPPLEMENTARY LIST No. 2
TO THE OFFICIAL LIST OF MEMBERS AS OF MARCH 1, 1951

JUNE 21, 1951

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Adler, Joseph, 933 Avenue C, Bayonne (9)
Beshlian, William V., 7 Lee pl., Paterson (16)
Borak, Peter L., Merck & Co., Rahway (20)
Boyle, Daniel E., N. J. State Hosp., Skillman (18)
Brady, Edward A., 11 Stone st., New Brunswick (12)
Brown, J. Edward, 2611 Centre st., Merchantville(4)
Chase, Anthony V., 220 S. Main st., Manville (18)
Germain, Raymond J.,26 Church st.,High Bridge(10)
Goldstein, Oscar E., 120 Passaic av., Passaic (16)
Hale, Matthew J., 467 High st., Burlington (3)
Hogan, James J., 211 High st., Mount Holly (3)
Holfelner, Edward, 300 Broadway, Camden (4)
Kimmich, John, Campbell Soup Co., Camden (4)
MacGahan, William H., 1 Main st., Butler (14)
Mango, Concetta G., 1 78th st., North Bergen (9)
Manzione, Frank A., 500 Union av., Paterson (16)
Mattioli, Delmo, Harding Hwy., Landisville (1)
Melvin, Daniel G., N.J. State Hosp.,Graystone P.(14)
Miller, Bernard J., 75 Raritan av.,Highland Park(12)
Musilin, Natalja, 514 Cooper st., Camden (4)
Rogers, Herman C., Bonnie Burn Sana.,Scotch P.(20)
Small, E. Lester, 50 Branch st., Medford (3)
Spinnler, Henry R., 242 Haledon av., Prospect P.(16)
Strauss, Clifton J., 51 De Forest av., Summit (20)

OBITUARIES

DR. CHARLES B. BURNETT

Dr. Charles B. Burnett, a practicing physician since 1893, died on May 12, 1951, at his home in South River.

Dr. Burnett was born in New Brunswick in 1871 and received his medical degree from Hahnemann Medical College in 1893. He began practice in Red Bank, but a year later moved to South River. He also maintained offices in South Amboy.

Dr. Burnett was one of six medical men honored in 1944 by the Middlesex County Medical Society for 50 years of service.

DR. WALTER J. DALBERG

Dr. Walter J. Dalberg, obstetrician and gynecologist, died at his home in Elizabeth on May 14, 1951, at the age of 58.

Born in Iselohn, Germany, Dr. Dalberg received his medical degree from the University of Baden. He also attended the universities of Heidelberg, Berlin and Munich. For the last 14 years he had lived and practiced medicine in Elizabeth. He was on the staff of St. Elizabeth Hospital, and St. Barnabas Hospital, Newark.

DR. EMLEN P. DARLINGTON

Dr. Emlen P. Darlington, 78, of New Lisbon, died on May 14, 1951, after a brief illness.

Dr. Darlington was born in West Chester, Pa., and was graduated from the University of Pennsylvania Medical College in 1899. He started a general practice at New Lisbon in 1912 and continued until his retirement a few years ago. He was past president of the American Entomological Society, a member of the Board of Managers of the Newcomb Hospital, New Lisbon, honorary member of the medical staff of Burlington County Hospital, and an Emeritus Member of the Burlington County Medical Society and The Medical Society of New Jersey.

DR. LUCIUS F. DONOHOE*

Dr. Lucius F. Donohoe, Senior Fellow of The Medical Society of New Jersey died on May 23, 1951. His death brought to a close a distinguished half-century career of medical practice and medical administration. He had had service as President of The Medical Society of New Jersey, medical director of the Bayonne Hospital and Mayor of the City of Bayonne.

He was born in Bayonne in 1868. He obtained his medical degree from Bellevue in 1889, and opened his office in Bayonne in 1891. Always interested in community affairs he served as a member, later president, of the Bayonne Board of Education; member of the Hudson County Park Commission; City Commissioner, later Mayor, of Bayonne. He had been county physician for Hudson. He served actively in the first World War, having earned, in addition to several U. S. Army citations, a special decoration from the French government. He was the spark-plug of the movement that led to the establishment of the present Bayonne Hospital and Dispensary. His wife, also a physician, served in the Army Medical Corps in World War I, and died while on foreign duty in Europe. His sister was the principal of a Bayonne school, and after her death, the school was named in her honor. He served as president of the Bayonne Medical Society, later president of the Hudson County Medical Society, and in 1924 became President of The Medical Society of New Jersey.

He was generally recognized as Bayonne's most distinguished citizen and was so honored at a special tribute dinner in 1948.

* For editorial comment on Dr. Donohoe's death, see page 254 of the June JOURNAL.

DR. THOMAS A. HIGGINS

Dr. Thomas A. Higgins of Jersey City, died of a heart attack on May 28, 1951, at the age of 52.

Dr. Higgins, a life-long resident of Jersey City, was graduated from New York University and Bellevue Medical School in 1921, and interned at Jersey City Medical Center. Several years ago, as a member of the Hudson County Medical Society's publicity committee, he gained fame as the first doctor to give talks over Station WAAT.

DR. LOTHAIR L. LEONARD

Dr. Lothair L. Leonard, an Asbury Park physician for 30 years, died on May 17, 1951, at the age of 77.

Dr. Leonard obtained his medical degree at the University of Vermont in 1904, and came to New Jersey in 1921. He was surgeon and consultant at Monmouth Memorial Hospital, Long Branch, and was a fellow of the American College of Surgeons.

DR. CARL M. SAGERT

Dr. Carl Sagert of Morris Plains, died suddenly of a heart attack on May 22, 1951.

Dr. Sagert was born in Des Moines, Iowa, in 1912. After receiving his M.D. degree from the University of Iowa in 1935, he interned at the Hackensack Hospital, Hackensack, N. J. He was resident physician on the staff of the State Hospital at Greystone Park for 11 years, and during the last six years of his service there he was head of the pathology department. He had been in private practice for the past four years. Dr. Sagert was a member of the New Jersey Society of Clinical Pathologists.

Medical-Surgical Plan of New Jersey

"New Jersey's Blue Shield Plan"

Medical-Surgical Plan is now completing the preparation of a new schedule of benefit payments to physicians for eligible services rendered to its subscribers. It is hoped that arrangements may be completed to make the new schedule effective in the early fall.

Prior to the effective date, a copy of the schedule will be sent to each Participating Physician, incorporated in a *Manual* that will contain much practical information of interest and value to Participating Physicians.

HOW ARE M.S.P. ALLOWANCES SET?

The Schedule of Benefits was formulated originally in the course of a series of conferences by the Plan's Medical Director with representative officers and members of the various state-wide professional societies. In the case of a specialty having no state-wide professional society, conferences were arranged with the officers of the appropriate Scientific Section of The Medical Society of New Jersey.

Each of these conference groups formulated recommendations as to adequate average payments for the eligible procedures in which the group was interested—with due regard to the maintenance of appropriate fee relationships with comparable procedures in other fields, and with consideration for the basic purposes and resources of Medical-Surgical Plan.

The recommendations of the various groups were then submitted for review and correlation by the Survey Committee of the Plan, comprising several Trustee-physicians, together with the Plan's legal and actuarial consultants.

The Survey Committee had to decide which of the many recommendations require contract changes and which do not. Those which do not require contract changes may be put into operation by the Board of Trustees as above anticipated. However, those recommendations which will require contract changes necessitate further study.

PRODUCT OF THE PROFESSION

Clearly, the Schedule of Benefits of M.S.P. is a product of the medical profession itself. A Schedule of maximum payments is necessary if the Plan is to operate at all. The purpose underlying the formulation and administration of the M.S.P. schedule is to compensate physicians adequately and fairly for eligible services for subscribers with incomes ranging up to $5000 and to assure the highest quality of medical care for the Plan's subscribers.

The average payments made by Medical-Surgical Plan of New Jersey are greater than those paid by any other Blue Shield Plan in the country, and our "income limits" for "service benefits" are equaled by only a few of the larger plans. The Trustees have sought at all times to adjust the Plan to the "facts of life", and to operate a program that will deliver the broadest possible benefits to the subscriber.

In the administration of the Plan, every claim is reviewed by or under the personal supervision of one or another of the Plan's medical directors—all of them physicians. Medical-Surgical Plan was organized by the medical profession of New Jersey. It serves more than 575,000 New Jersey people who have confirmed their confidence in the determination and ability of the medical profession to solve the problem of medical care by voluntary methods.

JAMES E. BRYAN, Administrator.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

Governor Driscoll on May 14, 1951, signed Assembly Bill No. 1. It is now the Local Health District Act, 1951, Chapter 69 of the Laws of 1951. This new law* makes it possible for two or more municipalities to form a unified local board of health. Hitherto, each municipality, regardless of size, had to maintain a board of health. The new act permits in public health work the kind of municipal mutual aid which has been effective in the development of consolidated school districts. The basic premise of the act is that several municipalities, with an enlarged population base, will be able to afford effective local health services that they cannot afford individually. The same premise underlies the development of consolidated school districts. The legislation is permissive. It does not compel municipalities to consolidate their public health services. It merely enables them to do so.

The bill permits the development of county units or consolidated local health units which would be independent of the county government.

The county unit will be under the jurisdiction of the board of freeholders, which will appoint the board of health of the county unit. A county unit need not embrace every municipality in the county but no more than one county unit is permitted in a county. Other municipalities in the county could enter an existing county unit but could not establish a second one. The municipalities in the unit would not have to be contiguous.

In the consolidated local health district, the source of authority would be the Advisory Council and Budget Review Board. It would consist of the mayors or chief executive officers of the municipalities in the district.

In either the county district or the consolidated local district, a board of health of seven members would be set up. Two of the members must be physicians.

Regional health commissions were permissible under previous legislation. However, they did not replace or supersede local boards within the commission. The health officer of the commission was responsible to each individual board of health, had to be reappointed annually by each, and had to enforce the varying ordinances of each.

In the kind of district permitted in the 1951 legislation, the health officer will be a full-time permanent employee. The consolidated board or county board of health will replace the individual board of health of the municipalities in the district. The ordinances will be district wide; they will not vary from municipality to municipality. The health officer will not have to be reappointed annually.

Municipalities desiring to set up consolidated or county local health districts do so on the basis of petitions and referenda. They can also withdraw from a unit or elect to go into another unit on the basis of petitions and referenda.

The act states that health officers must be persons with specialized training and experience in public health as determined by the local board and be the holder of a health officer's license issued by the State Department of Health. The act does not require that the health officer be a physician; it does not prohibit a physician from being a health officer.

Physician groups have the opportunity of taking the leadership in the development of more effective intercommunity public health services.

* For a full text of this law, write to the Commissioner of Health, State House, Trenton 7, N. J.

COUNTY SOCIETY REPORTS

CUMBERLAND COUNTY

Frank J. T. Aitken, M.D., Reporter

The regular monthly meeting of the *Cumberland County Medical Society* was held June 5, 1951, at the Recreation Lodge of the Owens-Illinois Glass Company at Palatine Lake near Elmer, with a record attendance.

Dr. Charles E. Sharp, Chairman of Legislation discussed the new proposed set up, *Assembly Bill No. 1;* and on his recommendation the society went on record in its favor.

The president, DR. E. C. GREENE turned the meeting over to the program chairman and president-elect, Dr. Norman W. Henry, who introduced DR. GEORGE P. ROSEMOND, clinical professor of Surgery at Temple University Hospital, who clearly assessed present day *Burn Therapy.* His talk was augmented by a discussion on *Anesthesia of Choice in Severe Burns* by DR. BURTON WALKER, JR., of the Temple staff.

Following the scientific session an outdoor banquet of lobster, charcoal steak and shrimp was enjoyed with the Owens-Illinois Glass Company personnel and medical department acting as joint hosts, while the doctors indulged in their favorite sport.

ESSEX COUNTY

Elizabeth R. Brackett, M.D., Reporter

The annual meeting of the *Essex County Medical Society* was held on May 10, 1951, in the Academy of Medicine, Newark. Dr. Otto Matheke, Sr., the President was in the chair.

The following officers were unanimously elected: *President*—KENNETH E. GARDNER; *President-Elect*—NICHOLAS A. ANTONIUS; *First Vice-President*—WILLIAM A. HAHN; *Second Vice-President*—FRANK S. FORTE; *Secretary*—MARCUS H. GREIFINGER; *Treasurer* — EDWIN STEINER; *Reporter* — ELIZABETH BRACKETT.

Dr. Matheke then gave his report, pointing out the objectives which had been accomplished and those still to be accomplished, with his recommendations for the future development and improvement of the Society.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The regular monthly meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club, May 17, 1951. A. GUY CAMPO, M.D., was in the chair for this last meeting of his regime.

First on the agenda was the scientific program, the speaker being I. S. RAVDIN, M.D., professor of Surgery at the University of Pennsylvania. Dr. Ravdin's illustrated topic was "Cancer of the Colon". This was a very practical and most interesting presentation.

The following officers were elected unanimously: *President*—ANTHONY J. DIMARINO, M.D.; *Vice-President*—DON B. WEEMS, M.D.; *Secretary*—CLARENCE A. BOWERSOX, M.D.; *Treasurer*—JOSEPH F. HUGHES, M.D.; *Historian*—DOROTHY M. ROGERS, M.D.; *Reporter*—LOUIS K. COLLINS, M.D.; Trustee for 3 years—WENDELL J. BURKETT, M.D.; Censor for 3 years—HENRY L. SINEXON, M.D.; Delegates to State Society for 3 years—JOHN J. LAURUSONIS, M.D., and WILLIAM G. HARRIS, M.D.; Alternates for 3 years—JAMES G. KEHLER, JR., M.D., and A. GUY CAMPO, M.D.; Member of Nominating Committee for 1 year—LOUIS K. COLLINS, M.D.; Alternate to Nominating Committee for 1 year—CLARENCE A. BOWERSOX, M.D.

MIDDLESEX COUNTY

F. L. Paret, M.D., Reporter

The May meeting of the *Middlesex County Medical Society* was held at the New Research Center of Johnson and Johnson, New Brunswick, on May 23, 1951.

As the members arrived, groups were conducted through the numerous laboratories and convened finally in the auditorium where the regular meeting was opened by the President, DR. MARSHALL SMITH with a word of welcome from William H. Lyon, Ph.D., Director of Research of Johnson and Johnson.

DRS. RUDOLPH G. MATFLERD and DAVID W. ANTHONY of New Brunswick, were elected to a two-year period of Associate membership and DR. CHESTER T. BROWN of New Brunswick, was elected to Honorary membership.

George F. Smith, President of Johnson and Johnson, then briefly addressed the Society on the pollution of the Raritan River and the present efforts of the Sewerage Committee, of which he is Chairman, to create a trunk sewer system as the only practical solution for cleaning up the Raritan Valley.

Following a preview of the film "River at Your Door", prepared by the Sewerage Commission to stimulate public support of its work, the Medical Society voted to support the Sewerage Commission to the fullest extent.

A report by the Polio Committee recommended continued operation of the Polio Hospital and indicated progress in the necessary requirements needed for American College of Surgeons approval. Dr. John S. Van Mater, Chairman of the Public Relations Committee, reported that the State Committee, at the annual convention in Atlantic City, recommended that each county society promote voluntary health insurance plans and establish doctor coverage of the public at all times, particularly Wednesdays and week-ends; and increase cooperation with the Woman's Auxiliary groups in all public health relations activities.

MONMOUTH COUNTY

Sidney M. Hodas, M.D., Reporter

A program on "Alcoholism" featured the regular monthly meeting of the *Monmouth County Medical Society*, which was held at the Monmouth Memorial Hospital, Long Branch, on April, 18, 1951. Dr. Joel Feldman, chairman of the Program Committee,

introduced the speaker of the evening, Dr. M. D. KISSIN of St. Luke's Hospital, Philadelphia, whose subject was "The Treatment of Alcoholism and Its Relation to Alcoholics Anonymous". There was, in addition, a brief talk by a member of Alcoholics Anonymous, in which he discussed the aims and achievements of his organization.

DR. J. M. FITZGERALD of Red Bank, previously a member of the Medical Society of New York, was elected to membership.

A regular monthly meeting of the *Monmouth County Medical Society* was held on May 23, 1951, at the New Jersey State Hospital, Marlboro, with DR. J. BERKELEY GORDON, President-Elect presiding. The guest speaker, DR. M. RALPH KAUFMAN, chief psychiatrist at Mt. Sinai Hospital, New York, presented a paper on "Psychiatry in a General Hospital". He described the function of the psychiatric service at Mt. Sinai Hospital.

Letters were read from the families of the late Drs. Nicholas S. Ransahoff and William A. Robinson, acknowledging the society's flowers and letters of condolence. The society also noted with deep regret, the recent deaths of Dr. Lothair L. Leonard and Dr. Leonard J. Martin.

Upon recommendation of the Membership Committee, DR. BAXTER L. CLEMENT of Red Bank was elected to Active membership in the society as a transfer from the Essex County Medical Society. DR. DANIEL J. COLLINSON, also of Red Bank, was elected to Associate membership. It was announced that the annual society outing would be held on June 27, at the Deal Country Club.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The annual meeting of the *Passaic County Medical Society* was held on May 22, 1951, at the Woman's Club, Paterson, with JOHN E. LEACH, M.D., President, presiding.

The following officers were unanimously elected: *President*—SANDOR A. LEVINSOHN; *First Vice-President*—JOSEPH M. KEATING; *Second Vice-President*—FLOYD FORTUIN; *Secretary*—JOSEPH R. JEHL; *Treasurer*—THEODORE K. GRAHAM; *Reporter*—LEOPOLD E. THRON.

DR. WILLIAM E. MUSTER, Ridgewood, and DR. CHARLES R. MOOG, Paterson, were elected to Active membership.

There was a short address by MR. E. W. TURNER of the State Plan for Disability Benefits of the Department of Labor and Industry.

Dr. Frank W. Ash, chairman of the Building Trustees, reported that the mortgage has been paid in full and the Medical Society is now in complete possession of the Building, that the work on the building is being done for the tenancy along with the Cancer Society and the Medical-Dental Service Bureau. He also presented a financial report on the building, from the opening of the account to date.

HENRY L. JAFFEA, M.D., Laboratory Director of the Hospital for Joint Diseases, Consultant in Bone Pathology, American Registry Pathology, Army Medical Museum, and Clinical Professor of Pathology, New York Medical College, spoke on "Skeletal Aspects of Certain Medical Diseases".

SALEM COUNTY

John S. Madara, M.D., Reporter

The regular monthly meeting of the *Salem County Medical Society* was held at the DuPont-Pennsgrove Club on March 16, 1951. The president, DR. AUGUST JONAS presided.

DR. JOHN J. REINHARD of Philadelphia General Hospital, gave an interesting talk on *Treatment of Infections of the Hand.* He discussed with the aid of slides, treatment of tenosynovitis, paronychia, sub-epidermal abscess, felon, collar-button abscess of the palm, palmar space infections and human bite infections.

Following the reading of the minutes, a letter was read from the state society requesting the formation of a *Judicial Council.* A motion was passed that the present Board of Censors be continued to function as the Salem County Judicial Council and that the members be appointed by the president for overlapping terms of three years.

On April 20, the regular monthly meeting was held at the Du-Pont-Pennsgrove Club with the vice-president, DR. R. LOUIS SILVERMAN presiding.

DR. VAUGHN MASON, assistant visiting surgeon in Gynecology and Obstetrics at Harlem and Syndenham Hospitals, New York City, spoke on "The Use of Intravenous Pitocin in Labor", which stirred up a lively discussion.

DR. PHILLIP ESGRO and DR. MUSE SHEPPARD of Elmer were accepted as members.

The following officers were elected for the coming year: *President*—DR. R. LOUIS SILVERMAN; *Vice-President*—DR. JOHN S. MADARA; *Secretary-Treasurer,* DR. HARRY F. SUTER; *Reporter*—DR. WILBUR S. DAVISON. DR. J. ROBERT COX was elected to the Judicial Council for a period of three years.

The members and their wives enjoyed the annual Shad Dinner held at the Salem Country Club on April 28, at 2:30 p. m. The members of the Press from Salem and Pennsgrove were also invited as well as the new members of the society and the speakers of the previous year.

SUSSEX COUNTY

Martin I. Kirschner, M.D., Reporter

The annual dinner meeting of the *Sussex County Medical Society* was held on May 8, 1951.

The following officers were elected: *President*—DR. LESLIE VERMES, Franklin; *Vice-President and President-Elect*—DR. ROBERT WEINSTEIN, Newton; *Secretary*—DR. ROBERT FICKER, Ogdensburg; *Treasurer*—DR. DEAN HILL, Sussex; and *Reporter*—DR. MARTIN I. KIRSCHNER, Vernon.

The Polio Committee announced that with the aid of a cash donation of a local service organization, equipment was purchased for the use of hospitalized cases of poliomyelitis. A wing in the Newton Hospital was set aside for the sole use of such cases. A graduate nurse and a physician volunteered to take special courses subsidized by the Polio Foundation. The Linn Hospital in Sussex was also supplied with a resuscitator.

WOMAN'S AUXILIARY

INAUGURAL ADDRESS

MRS. THOMAS H. MCGLADE, West Collingswood

Acceptance of leadership of this organization carries with it great responsibility. I consider it a signal honor since I shall be the twenty-fifth president. The first president, Mrs. A. Haines Lippincott, like myself was from Camden County. During the past quarter of a century the Auxiliary has been active in various fields and our achievements have been many. Recently, we have received national recognition for our School and Rural Health Programs. We have been further honored by having one of our members elected to the national presidency. This measure of success has been due to the combined efforts of Auxiliary members and it is my hope that during this year we shall continue to progress. There is much work to be done.

Our purpose is to assist and support the activities, policies and program of the Medical Society. Dr. John W. Cline, President-Elect of the American Medical Association has stated that the Auxiliary represents the most potent organization allied with medicine. We understand its real aims and objectives and as individuals we possess great power to influence the opinion of the public upon important health issues.

Interest in Civil Defense is vital during this critical period. At the present time, plans are originated at local and regional levels. Each county should have a study group. The American Red Cross is greatly in need of Instructors in First Aid and Home Nursing. Courses of instruction are offered by the Red Cross in both these fields. This is a splendid opportunity for Auxiliary members to be of service.

The mobilization program has further depleted the nursing shortage. It is estimated that if the present demands continue there will be a deficit of 49,000 nurses by 1954. To secure a sufficient number of nurses, it would require one High School Graduate from every ten to enter the nursing profession. Our nurse recruitment program, in the past, has been productive. It is now necessary that we strive with even more enthusiasm to interest young girls in a nursing career.

Our goal in membership should be 100 per cent of those eligible to join. According to last year's organization report there were 4973 physicians in the Medical Society and 1577 Auxiliary members. Since our total membership showed only 32 per cent of those eligible there is room for considerable improvement.

Along with our important objectives we must maintain the spirit of friendliness within our group. Member participation in programs stimulates new interest. Social functions are equally important.

We must continue to be alert and well informed on all proposed medical legislation. Greater use might be made of the Auxiliary as a source of health information. Offering our services in health programs to lay organizations, is desirable. In this way, we can be sure the presented facts are authentic. Televising health programs is deserving of consideration.

I am grateful for having been selected as president for the coming year and I shall do my utmost to fulfill the principles of the Auxiliary pledge. It is my desire to pay tribute to the past presidents, chairmen and Auxiliary members who have been responsible for the growth and development of the State Auxiliary.

The task that lies ahead in these troubled times will be difficult but the achievements of Martha Cottone always in the spirit of humility, service and graciousness will ever be an inspiration to me.

CORRECTION IN LIST OF OFFICERS

The name of the 1951-1952 Corresponding Secretary was erroneously listed in the June JOURNAL as Mrs. George Corio, Trenton. Mrs. Frederick G. Wandall of Pitman is the new Corresponding Secretary.

1951-1952 PROGRAM

1. Assistance to the Medical Society in its program and health measures.
2. Continue to be well informed and alert on all medical legislation.
3. Public Relations, particularly stressing the problem of the chronically ill.
4. Civil Defense.
5. Stimulate Nurse recruitment.
6. Promote Auxiliary sponsored programs.
7. Obtain subscriptions for *The Bulletin.*
8. Publicize and secure subscriptions to *Today's Health.*
9. Interest the public in the Medical-Surgical Plan of New Jersey.
10. Membership goal of 100 per cent in county auxiliaries.
11. Greater membership participation.
12. Continue to contact individual members through the New Jersey *News-Note.*

COUNTY AUXILIARY REPORTS

Atlantic County

Mrs. Samuel L. Winn,
Chairman, Press and Publicity

The annual spring luncheon of the *Woman's Auxiliary to the Medical Society of Atlantic County* was held in the Traymore Hotel, May 11, 1951. Mrs. Clarence Whims presided at a short meeting following the luncheon.

The three winners of the essay contest, "Why I want to become a Nurse", which was sponsored by the Auxiliary were invited guests as was Miss Elsie Casperson, R.N., Directress of Nurses of the Atlantic City Hospital. Mrs. L. M. Walker, chairman of this special essay committee, introduced the three high school girls who wrote the winning essays and presented the awards.

The chairmen of committees reported their year's activities, programs or work they had accomplished.

Mrs. Matthew Molitch was installed as *President;* *President-Elect,* Mrs. F. Rolfe Westney; *First Vice-President,* Mrs. Herbert Axilrod; *Second Vice-President,* Mrs. E. H. Nickman; *Recording Secretary,* Mrs. J. E. Mishler; *Treasurer,* Mrs. Daniel Wilner.

Camden County

Mrs. Walter A. Crist,
Chairman, Press and Publicity

The twenty-fourth annual Public Relations Meeting of the *Woman's Auxiliary to the Camden County Medical Society* was held March 27, 1951, at the Haddon Fortnightly, Haddonfield.

An innovation from previous meetings was the guest participation in visits to the numerous exhibits that were shown. They included material portraying and describing the work of the Camden County Chapter, American Cancer Society; the Camden County Chapter, American Red Cross; the Camden County Tuberculosis Association; the Mobile Eye and Mobile Dental Clinics; the Visiting Nurse Association of Camden; Nurse Recruitment; Polio; Diabetes; Civil Defense; American Heart Association; Diet; School Health; Vision Test for Driving; and a very unusual and outstanding radium display by the Eldorado Mining Corporation of Canada.

The morning session was opened with greetings from Mrs. Thomas McGlade, President. Mrs. Ralph K. Bush, Publicity Chairman, introduced Dr. Oram R. Kline, President, Camden County Medical Society and Drs. Robert S. Gamon and Harold K. Eynon, Auxiliary Advisors.

Dr. Benjamin F. Lee, gave an excellent discourse on "What Available Health Services Mean to You".

The afternoon session gave us an opportunity to hear the following outstanding speakers:

Mr. Lloyd Wescott, President, Hunterdon County Board of Agriculture and member of the Governor's Committee on Local Health Administration discussed "Workable Health Units for New Jersey".

Dr. G. Frederick Moench, Director of Bureau of Local Health Services, State Department of Health and Deputy Director of Health for the State of New Jersey spoke of "Evaluating Your Health Needs".

Dr. Walter A. Crist, Deputy Director of Medical Aid and Health Service for the Civil Defense Council, City of Camden, explained the serious results of an atomic attack on highly industrialized areas and spoke of the requirements and "Progress of Civil Defense Planning".

Dr. Alexander Ellis, head of Cooper Hospital Diabetic Clinic, described progress in treatment of Diabetes.

Dr. Lewis L. Coriell, Medical Director, Camden Municipal Hospital, told of the wonderful advances that had been made in the treatment of poliomyelitis.

Mrs. Thomas McGlade, President, entertained the members of the Executive Board at a delightful luncheon at Tavistock Country Club, Haddonfield, on April 17, 1951.

The annual reports of committee chairmen were read at the business meeting which preceded the luncheon.

The money realized from the annual card party was allocated to the Nurse Scholarship Fund.

The annual luncheon was held May 1, 1951, at Log Cabin Lodge, Medford Lakes. Mrs. Thomas McGlade, President, welcomed members and guests and presided over a short business meeting.

Installation of the following officers for 1951-1952 took place: Mrs. H. F. Westcott, *President;* Mrs. William Braun, *President-Elect;* Mrs. Kenneth Athey, *First Vice-President;* Mrs. Benjamin Lee, *Second Vice-President;* Mrs. Walter A. Crist, *Treasurer;* Mrs. Oram Kline, *Recording Secretary;* Mrs. Penrose Thompson, *Corresponding Secretary.*

Mrs. Harold K. Eynon presented the Past President's Pin to Mrs. Thomas McGlade.

Vocal solos were beautifully rendered by Mrs. Robert F. Grenhart.

Miss Lila May Walkden, Director of Research and Education of the World Affairs Council of Philadelphia, gave an excellent and enlightening talk on the work of the World Health Organization.

Essex County

Mrs. Stuart Zeh Hawkes,
Chairman, Press and Publicity

The regular April meeting of the *Woman's Auxiliary to the Essex County Medical Society* was held at the Academy of Medicine, Newark. Mrs. Jesse T. Glazier presided at the meeting which honored the past-presidents and the new members. Mrs. John O'Sullivan, chairman of the Legislation Committee, presented a delightful skit, "Happy Daze Are Here Again", a satire on Socialized Medicine, written and directed by Mrs. John Insabella. Mrs. Jerome Kaufman presented the past-presidents. The annual collection of medical samples, drugs and surgical instruments was made and the large supply is already on its way to Korea. The annual election of officers was held and Mrs. John Torppey of Glen Ridge was elected President. Mrs. Otto Matheke, Jr., and her committee served tea.

The State Auxiliary Convention held at Haddon Hall, Atlantic City, May 14, 15 and 16 was attended by many members of the Essex Auxiliary. Our President, Mrs. Jesse T. Glazier reported for Essex County and stressed the highlights of our Public Relations Day, our nurse scholarships and our new Nurse Recruitment Committee. At the Board Meeting, Mrs. Thomas Delaney, Executive Secretary of the Essex County Service for the Chronically Ill, presented concrete evidence of the Service's important place in the community. Mrs. Frank Forte, Newark, was elected First Vice-President of the State Auxiliary and Mrs. Asher Yaguda, Newark, was re-elected Treasurer.

Mrs. Louis L. Covino,
Chairman, Press and Publicity

The Woman's Auxiliary to the Essex County Medical Society held its annual spring luncheon and installation of officers at the Essex House, Newark, on May 22, 1951. Mrs. Jesse T. Glazier, retiring President, was named Chairman of the Nominating Committee for the coming year. Her annual report was read to the group and each chairman was given a hearty "thank you".

The Chairman of the Nurse-Scholarship Committee, Mrs. Robert White of West Orange, introduced the four recipients of the scholarship awards for the coming year: Angela M. Messina, Caldwell, and Margaret E. Landers, West Orange, both of whom will attend Orange Memorial Hospital School of Nursing; Martha P. Bastian who is going to Presbyterian Hospital and Rachel Ann deCheser, Verona, who is going to Mountainside Hospital.

Dr. Kenneth Gardner, President of the County Society, Dr. Henry Crossfield, President of the Academy of Medicine, and Dr. Harry Comando, President-Elect of the Academy were guests of honor and brought greetings to the Auxiliary. Mrs. Jerome Kaufman did a superb job as Chairman of the Program for the day. The luncheon arrangements were once more in the capable hands of Mrs. Otto Matheke, Jr., and her Committee. Mrs. John Torppey of Glen Ridge, the new president, announced that Nurse-Recruitment will be the main project for the coming year.

The following officers were installed in addition to Mrs. Torppey: President-Elect, Mrs. Pascal Baiocchi; First Vice-President, Mrs. Stuart Zeh Hawkes; Second Vice-President, Mrs. Ralph R. Autorino; Recording Secretary, Mrs. Harry DiGiacomo; Treasurer, Mrs. Philip D'Ambola; Secretary to the Treasurer, Mrs. Don A. Epler; Directors, Mrs. Michael Bonomo and Mrs. Louis Covino. Mrs. Torppey appointed Mrs. Fred Meinhard as her Corresponding Secretary.

Union County

Mrs. E. O. MacDonald, Publicity Chairman

The annual meeting of the *Woman's Auxiliary to the Union County Medical Society* was held May 22, 1951, at the Y.M.C.A. in Westfield. Mrs. Bertram Sauerbrun, of Elizabeth, retiring President, presided. The following members were elected to office for the year 1951-1952: President, Mrs. Austin Tidaback, Union; First Vice-President, Mrs. Robert Yuckman, Cranford; Second Vice-President, Mrs. Louis Wegryn, Elizabeth; Corresponding Secretary, Mrs. William Meineke, Roselle; Recording Secretary, Mrs. Walter Booth, Elizabeth; Treasurer, Mrs. L. C. Victor duBusc, Elizabeth; and Directors, Mrs. Walter Phelan, Elizabeth, Mrs. Bertram Sauerbrun and Mrs. Edward MacDonald, Roselle Park.

Mrs. Tidaback, upon assuming the chair, gave a short talk on the importance of Auxiliary work and introduced to the Auxiliary the new Executive Board of 1951-1952. Mrs. William Wuester, Hillside, Past-President of the Auxiliary, presented Mrs. Sauerbrun with the Past-President's pin and a gift from the Auxiliary in recognition of her outstanding work for the past four years, first as program chairman and then as president. Mrs. Graham Newbury, Summit, was in charge of the program, which included a very delightful fashion show. Mrs. Edward Bourns, Westfield, was Chairman of Arrangements.

BOOK REVIEWS

Medicine of the Year 1951. Edited by John B. Youmans, M.D. Third Issue. Pp. 298. Philadelphia, J. B. Lippincott Company, 1951. ($5.00)

All major fields of medicine and surgery are covered by this book. Each article is good and the general practitioner especially will find the book rewarding. The discussion on antibiotics is excellent and timely, as are sections on salt-depletion syndrome and potassium metabolism, ACTH and cortisone. One of the best services performed by this book is the light it casts on the efficacy of certain therapeutic procedures very much in vogue. For instance, in the section on obstetrics and gynecology (edited by Frank Whitacre) the work of Calvin, *et al.* is cited: ". . . only 3.9 per cent of the 15 per cent threatened abortions could theoretically be benefited by specific hormone or vitamin therapy and possibly salvaged. Hanley, who for the past two years has treated threatened abortions with large doses of stilbestrol given daily, states that the proportion of fetuses salvaged was no greater than those in which no medication was given except bed rest and sedation."

The book itself, unfortunately, falls prey to one of the evils it depicts, i.e., the faulty evaluation of drugs. Thus on page 22, Khellin is described as being of value in the treatment of angina after having been called worthless on page 13. There are other examples of similar contradictions, which perhaps are evidence of the lack of scientific organizations and standardization in medicine or they may, in part, be traceable to insufficient editorial effort.

One of the major shortcomings of this book is the lack of a section on preventive medicine. Perhaps this again merely reflects a failure of medicine as we practice it today.

HAROLD E. LIPPMAN, M.D.

The Physician Examines the Bible. By C. Raimer Smith, M.D. Pp. 394. New York, Philosophical Library, 1950. ($4.25)

Many books have been written to analyze and interpret those part of the Bible which seem to have connections with medical problems. Such interpretations have differed widely depending upon the background of the interpreter. Whether he is a Christian or a Jewish scholar is of great significance inasmuch as the differences mostly originate in the author's knowledge or lack of knowledge of the original language.

Dr. Smith certainly has a profound knowledge of the substance and, of course, also of the medical problems. It is interesting, therefore, to read his "examinations" for he has added a number of appealing facts and explanations of earlier works. It is doubtful whether a book like this should enter into the discussion of actual controversial medical topics. It might result in confusing those who do not have a basic knowledge of the substance. On the other hand, for the individual with a scholarly background it may prove stimulating and instructive.

BEN LIEGNER, M.D.

The Chemical Formulary. Edited by H. Bennett. Ed. 9. Chemical Publishing Company, Brooklyn, 1951. Pp. 648. ($7.00)

In the old days, the local physician was something of a chemist too. He fooled with test tubes and retorts, and could recite the structural formula of ethyl alcohol as glibly as he could name the bones of the wrist. The progress of medicine and the increasing complexity of chemistry have pushed the two arts too far apart. Here is a book which will re-awaken that buried chemist in every doctor's soul, send him to the kitchen for an aluminum pot and to his own back room for that Bunsen burner. Here is a book of 7000 formulas. With it the doctor can putter around, and with simple ingredients make his own mouth washes, cold creams, flavoring and coloring agents, floor polish, shaving cream, chest rubs, cuticle softeners, and tooth ache drops. He can put up analgesic balm, paint-brush cleaner, and sun-burn remedies. He can, in his own office, or even in his wife's kitchen, make deodorants, electrocardiograph jelly, rust remover, enteric tablet coating, weed-killer, and secret-writing ink. It's probably cheaper to buy all those things, but it's a lot more fun to make them yourself.

The formulas here are all practical. They can be implemented with simple household or office equipment. An index in the back tells you where to buy every ingredient listed in the book. The instructions are terse and as practical as your wife's ice-box-cake recipe. There are hints on laboratory safety, drug mixing and temperature reading. There is much more too, but I'm stopping now since I want to try the formula for making flavored envelope glue. If my wife let's me, that is.

HENRY A. DAVIDSON, M.D.

General Psychotherapy. By D. Ewen Cameron, M.D. Pp. 304. Grune and Stratton, New York, 1951. ($5.00)

For half a century the general practitioner and the beginning psychiatrist have cried aloud for a guide-book on psychotherapy. They have been disappointed with texts which devote a thousand pages to psychodynamic theory and two pages to treatment technic. Because psychotherapy is more of an art than a science, this demand has been hard to meet.

This book comes as close to being a practical, down-to-earth, across-the-desk manual as any I have seen. Both directive and nondirective therapies are spelled out in practical fashion, and there are short sections on electric shock, medication, narcosynthesis, psychotherapeutic nursing and group psychotherapy. There is also a stimulating chapter on the manipulation of the patient's general social setting. All in all, *General Psychotherapy* is a useful guide to the junior psychiatrist, a thought-provoking text for the general practitioner, and a helpful refresher for the experienced psychiatrist.

ABRAHAM LEFF, M.D.

Volume 48
Number 7

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV July, 1951 No. 7

THE SIGNIFICANCE OF THE ISOLATED PULMONARY NODULE

David V. Sharp, M.D., and Thomas J. Kinsella, M.D., Minnesota Medicine, September, 1950.

The increasing use of chest roentgenograms has confronted physicians with a variety of unsuspected chest conditions including the isolated pulmonary nodule. This condition, variously designated as the "pulmonary coin lesion," the peripheral nodule, or dismissed as a "tuberculoma," presents diagnostic and therapeutic implications far out of proportion to the seemingly insignificant nodule itself.

During the past four years, a total of 96 such nodules in patients from 12 to 85 years of age have been studied. These nodules differed widely in appearance and were found in all segments of the lung. In size they varied from one to four centimeters in diameter, thereby excluding the large bronchiogenic carcinomas and the smaller calcified areas—the Ghon tubercles. They were round or ovoid in contour with edges smooth, fuzzy or irregular. The density varied from very soft infiltrates to extremely dense nodules. The presence of calcium deposits does not establish the benign or malignant nature of the process. Growth of a nodule has been noted in fibroma, hamartoma, adenoma and the granulomas, while lack of growth may occasionally be noted in carcinoma over many months. All nodules were entirely asymptomatic with two exceptions (bleeding from pulmonary cysts).

When confronted with a patient whose X-ray films reveal an isolated pulmonary nodule, careful studies should be instituted at once to attempt to determine the nature of the lesion. A careful history and complete physical examination should be supplemented by special diagnostic procedures as indicated. An exhaustive search must be made for primary tumors elsewhere and for underlying disease which might produce a local lung lesion. Laboratory studies may give a clue to the etiology of the nodule. Skin testing particularly for tuberculosis, histoplasmosis, blastomycosis, coccidioidomycosis and echinococcus disease may help to establish a diagnosis in an obscure pulmonary infiltration. Our experience would indicate, however, that skin test reactions are of suggestive rather than absolute diagnostic value.

The relative frequency of tuberculosis and its tendency to produce nodular areas of disease on the lung must place it high on the list of suspected causes of such nodules. Sputum, if any, must be carefully studied for mycobacterium tuberculosis. In its absence, bronchial secretions or washings obtained bronchoscopically or gastric washings may be studied culturally or by guinea pig inoculation. However, the relatively high incidence of malignancy in this series (27.3 per cent) and the usual rapid growth of bronchial malignancy makes one seriously doubt the wisdom of delaying action for laboratory reports. Failure to recover organisms from secretions does not rule out tuberculosis. Malignant cells in bronchial secretions of patients with isolated pulmonary nodules are found but rarely.

The most valuable X-ray study may lie in a comparison of the recent with older films if available. Evidence of growth of the lesion is an indication for its prompt removal. Recommending another film in three to six months could seal the patient's doom in the presence of malignancy. From the experience gained by these studies, we have concluded that the only reliable and accurate diagnostic procedure is exploratory thoracotomy

with excision and prompt pathological examination of the mass.

From the 96 nodules studied, 55 have been definitely proven by surgical operation (49) or by medical means (six). The positive bronchoscopic biopsy of malignancy or the progression of the lesion to fatal termination, the recovery of tubercle bacilli or the demonstration of a proven primary tumor elsewhere has been accepted as final medical proof. Fifteen (27.3 per cent) of the 55 proven nodules were malignant. Eleven were due to primary bronchiogenic carcinoma, one to a primary lymphosarcoma in the periphery of the lung and three to solitary metastatic nodules from carcinoma of the breast, colon and testicle. Eighteen (32.7 per cent) were found to be benign tumors.

The microscopic picture of most granulomas of varying etiology is similar and the only positive proof of the tuberculous or other etiology of such lesions is the demonstration of the specific organism. The number of proven tuberculous granulomas (six of 22) is small for this reason. Five others are listed as suggestive of tuberculosis because of the clinical findings and microscopic picture. Perhaps the pre-operative administration of streptomycin may have been a factor in negative cultures reported in this group. To date, our attempts to isolate other organisms from a group of these nodules have been disappointing, hence, the 10 nodules of undetermined etiology. The fact that some of these nodules unquestionably represent mature and burned out lesions must also be considered. The 41 undiagnosed nodules listed represent a group of patients who either have not completed their workup or have refused exploratory thoracotomy as recommended to the physician.

With the surgically treated patients, the usual procedure has been, at open thoracotomy, to excise the local nodule by means of a wedge resection and suturing the lung behind clamps while the pathologist is making his examination of the excised nodule. The procedure has been extended to segmental resection, to lobectomy or even to pneumonectomy as conditions and the pathologist's findings warrant.

This experience and the reports of others have convinced us that an accurate pre-operative diagnosis of the nature of an isolated pulmonary nodule is impossible in the vast majority of instances. Exploratory thoracotomy and immediate pathological examination provide the only accurate means of determining the exact nature of the lesion. The low calulated risk of such a procedure and the relatively high incidence of malignancy (27.3 per cent) make it the only safe and logical method of treating the isolated pulmonary nodule.

SINGLE, CIRCUMSCRIBED, INTRATHORACIC DENSITIES

Hans Abeles, M.D., and David Ehrlich, M.D., New England J. Med., Jan. 18, 1951.

In the course of mass chest X-ray surveys for the discovery of pulmonary tuberculosis, 44 patients with single, circumscribed intrathoracic densities were seen. In 31 patients, a malignant lesion could not be ruled out after a complete examination, and early exploratory thoracotomy was advised. Twenty-one patients underwent exploratory thoracotomy. Seven primary malignant lesions and one metastatic lesion were removed. Ten patients refused the exploratory operation, six of them on the advice of family physicians. Five of the 10 patients were subsequently shown to have a definitely malignant lesion. Thirteen patients observed by periodic examinations since the initial workup, suggested a benign lesion. None of the 13 patients gave evidence of a malignant lesion during a follow-up period of at least two years.

The early exploration of every single intrathoracic mass is recommended whenever a malignant lesion cannot be reliably ruled out.

SUPPLIED BY
NEW JERSEY TRUDEAU SOCIETY
the medical section of the
NEW JERSEY TUBERCULOSIS LEAGUE
15 East Kinney Street, Newark 2, New Jersey

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET

SITUATIONS, ETC.

$3.00 for 25 words or less; additional words 5c each

CASH MUST ACCOMPANY ORDER

Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

FOR RENT—Furnished office suite in Irvington, N. J. Ideally situated; excellent opportunity for general practitioner. All facilities furnished. Write Box M, c/o THE JOURNAL.

FOR RENT—Furnished and equipped four room office in Jersey City, N. J. Excellent location. Phone mornings, Delaware 3-8139.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No Good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

SPLENDID OPPORTUNITY for energetic doctor, finishing internship, in growing New Jersey community—New York City area. Assist building up G.P.'s practice. Share basis; ultimately inheriting practice. Medical Business Bureau, 127 E. 60 St., N. Y. C.

FOR SALE—(at Dover, N. J.) Well built, large, corner brick house. Eleven rooms, double garage, 100x100 property. Very suitable for doctor. Near hospital. Communicate L. S. Livingston, 27 Baker Avenue, Dover, N. J. Dover 6-1915 R.

FOR SALE—Colonial ten room country home, all modern conveniences, quiet, 300 ft. frontage, beautiful grounds, one building suitable for hospital use; 2 floors 25 x 50 each; also attic and basement; steam heat and running water; also other out buildings in excellent condition. 50 miles from New York, Morris County in the Schooley mountain district, 600 ft. above sea level. P. O. convenient, four mails daily. Succasunna 9225, Frank Radetzky, Bartley, N. J.

MAPLEWOOD, NEW JERSEY — Dignified, substantial, all brick residence with slate roof. Attached, heated and lighted garage for three cars. This fine home, on Prospect Street near the Crescents is ideally located for either home or office. Four family bedrooms, two baths. Maid's bedroom, sitting room and bath. Commanding location with fine views toward South Mountain; picture windows. Price $44,000.00. ANDREW JACK, Realtor, SO 2-2400, eves. SO 2-0351. 157 Maplewood Avenue, Maplewood, N. J.

AN EFFECTIVE BARRIE

PARKE, DAVIS & COMPAN

BETWEEN

POLLEN AND PATIENT

When there's pollen in the air, and hay fever on a host of faces, your patients look to you to protect them. Fortunately, in BENADRYL you have a dependable barrier against the distressing symptoms of respiratory allergy.

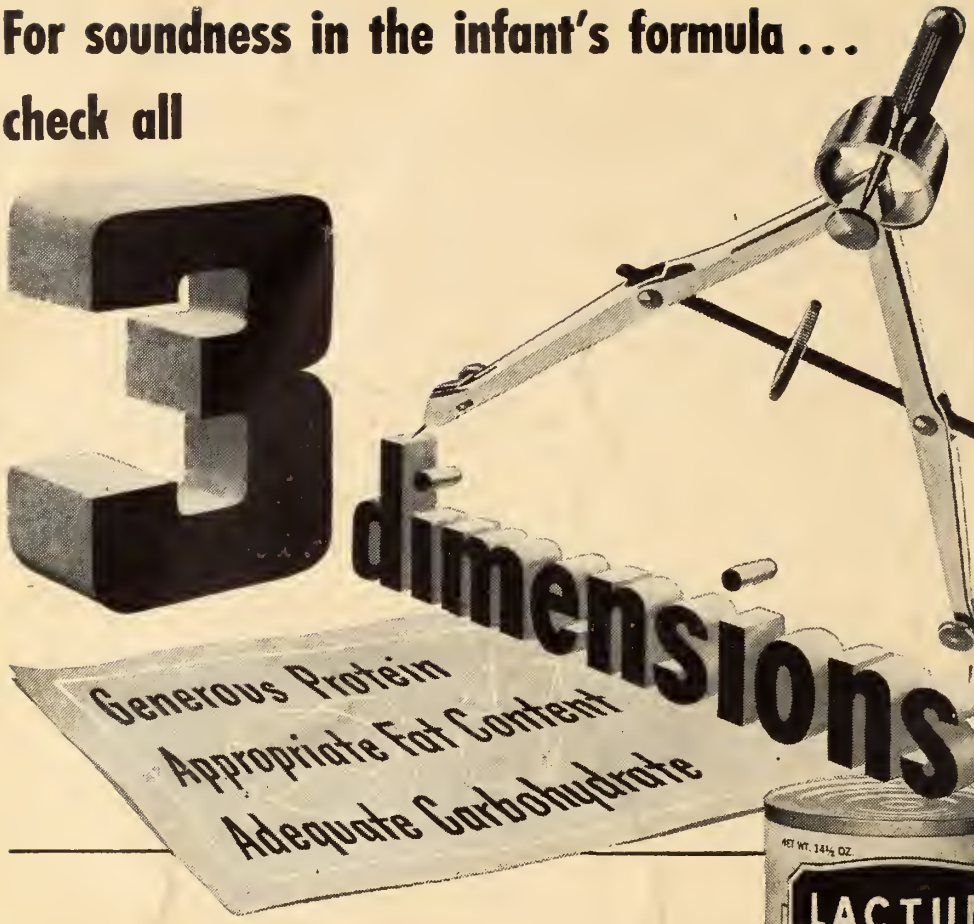
Benadryl®

PIONEER

ANTIHISTAMINIC

For your convenience and ease of administration BENADRYL hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a wide variety of forms including Kapseals®, Capsules, Elixir and Steri-Vials®.

For soundness in the infant's formula . . . check all



An example of sound three-dimensional structure is LACTUM, Mead's evaporated whole milk and Dextri-Maltose® formula.

1. Sixteen per cent of Lactum's calories are supplied by *milk protein*—a generous allowance for growth and development.
2. *Milk fat* contributes 34% of the calories.
3. *Carbohydrates* (lactose and Dextri-Maltose) supply 50% of the calories—to provide generously for energy, permit proper metabolism of fat, spare protein for tissue-building functions.

Authoritative pediatric recommendations support this caloric distribution. And cow's milk and Dextri-Maltose formulas with these approximate proportions have been successfully used in infant feeding for forty years.

Lactum's 4th dimension . . .
Time-saving convenience
Simply add water. A 1:1 dilution of Lactum provides 20 calories per fluid ounce.

FOR INFANTS WITH LOW FAT TOLERANCE
DALACTUM, an evaporated low fat milk and Dextri-Maltose formula offering the same convenience as Lactum.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 8 AUGUST, 1951 Subscriptions, $3.00 per Year
Single Copies, 30 Cents

CONTENTS—Pages 351 to 398

Place of Publication, Printing and Mailing:
116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society:
315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*.....Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, SIGURD W. JOHNSEN.....Passaic
President-Elect, HARROLD A. MURRAY.....Newark
First Vice-President, HENRY B. DECKER.....Camden
Second Vice-President, ELTON W. LANCE.....Rahway
Secretary, MARCUS H. GREIFINGER.....Newark
Treasurer, GEORGE J. YOUNG.....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953).....Atlantic City
REUBEN L. SHARP, *Secretary* (1954).....Camden
SIGURD W. JOHNSEN.....Passaic
HARROLD A. MURRAY.....Newark
HENRY B. DECKER.....Camden
ELTON W. LANCE.....Rahway
MARCUS H. GREIFINGER.....Newark
GEORGE J. YOUNG.....Morristown
ALDRICH C. CROWE.....Ocean City
WILLIAM F. COSTELLO (1953).....Dover
WILLIAM C. WILENTZ (1953).....Perth Amboy
JOSEPH G. COLEMAN (1953).....Hamburg
L. SAMUEL SICA (1954).....Trenton
DAVID W. GREEN (1954).....Salem
J. LAWRENCE EVANS (1954).....Woodcliff
ROYAL A. SCHAAF (1952).....Newark
WILLIAM E. DODD (1952).....Beach Haven
C. BYRON BLAISDELL (1952).....Asbury Park

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1954)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....JACOB J. MANN, Perth Amboy (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1954)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1953).....Hoboken
WILLIAM F. COSTELLO (1953).....Dover
J. WALLACE HURFF (1952).....Newark
DAVID B. ALLMAN (1952).....Atlantic City
ELMER P. WEIGEL (1952).....Plainfield
L. SAMUEL SICA (1952).....Trenton

Alternates

ALBERT B. KUMP (1953).....Bridgeton
WALTER F. PHELAN (1953).....Elizabeth
JOHN H. ROWLAND (1952).....New Brunswick
ALDRICH C. CROWE (1952).....Ocean City
HERSCHEL PETTIT (1952).....Ocean City

DELEGATES TO OTHER STATES

Delegates

New York—ALDRICH C. CROWE (1952).....Ocean City
Connecticut—C. BYRON BLAISDELL (1952).....Asbury Park

Alternates

New York—D. WARD SCANLAN (1952).....Atlantic City
Connecticut—BLACKWELL SAWYER (1952).....Toms River

OFFICERS OF SCIENTIFIC SECTIONS

Allergy

EDWARD E. SEIDMON, *Chairman*.....Plainfield
LEWIS W. BROWN, *Secretary*.....Newark

Anesthesiology

D'ARCY C. CLARIE, *Chairman*.....Leonia
DURANT K. CHARLEROY, *Secretary*.....Trenton

Chest Diseases

SAMUEL COHEN, *Chairman*.....Jersey City
WILLIAM C. DOUGLASS, *Secretary*.....Bernardsville

Clinical Pathology

EDWIN H. ALBANO, *Chairman*.....East Orange
WILLIAM W. HERSOHN, *Secretary*.....Atlantic City

Dermatology

EVERETT V. DULIN, *Chairman*.....East Orange
EMANUEL M. SATULSKY, *Secretary*.....Elizabeth

Eye, Ear, Nose and Throat

ALBERT F. MORICONI, *Chairman*.....Trenton
WILLIAM H. HAHN, *Secretary*.....Newark

Gastro-Enterology and Proctology

SAMUEL RUBIN, *Chairman*.....Asbury Park
S. WILLIAM KALB, *Secretary*.....Newark

General Practice

EDWIN ROSNER, *Chairman*.....Collingswood
SIDNEY D. BECKER, *Secretary*.....Keyport

Heart Diseases

LOUIS F. ALBRIGHT, *Chairman*.....Asbury Park
HAROLD K. EYNON, *Secretary*.....Camden

Medicine

J. JAMES SMITH, *Chairman*.....Elizabeth
CLARENCE B. WHIMS, *Secretary*.....Ventnor

Metabolism

JOSEPH SKWIRSKY, *Chairman*.....Newark
GEORGE M. KNOWLES, *Secretary*.....Hackensack

Neuropsychiatry

ROBERT S. GARBER, *Chairman*.....Trenton
GEORGE W. HAGER, JR., *Secretary*.....Camden

Obstetrics and Gynecology

BENJAMIN DAVERSA, *Chairman*.....Spring Lake
JOSEPH E. MOTT, *Secretary*.....Paterson

Orthopedics

PAUL J. FINEGAN, *Chairman*.....Trenton
RAPHAEL R. GOLDENBERG, *Secretary*.....Paterson

Pediatrics

MARTIN A. QUIRK, *Chairman*.....Red Bank
MARTIN GREEN, *Secretary*.....Atlantic City

Radiology

BENJAMIN COPLEMAN, *Chairman*.....Perth Amboy
NICHOLAS G. DEMY, *Secretary*.....Plainfield

Rheumatism

IRVING L. SPERLING, *Chairman*.....Newark
W. ALLAN WRIGHT, *Secretary*.....East Orange

Surgery

STUART Z. HAWKES, *Chairman*.....Newark
H. WESLEY JACK, *Secretary*.....Camden

Urology

ROBERT L. McKIERNAN, *Chairman*.....New Brunswick
IRWIN MARKOWITZ, *Secretary*.....Jersey City

STANDING COMMITTEES

Finance and Budget

David B. Allman, *Chairman* (1953) .....Atlantic City
Anthony J. Conty (1952) .....Union City
Herschel Pettit (1953) .....Ocean City
William F. Costello (1955) .....Dover
Luke A. Mulligan (1956) .....Leonia
L. Samuel Sica (1957) .....Trenton
George J. Young, *Ex-Officio* .....Morristown

Medical Defense and Insurance

J. Wallace Hurff, *Chairman* (1953) .....Newark
Joseph J. Ruvane (1952) .....Jersey City
Arthur J. Ganley (1952) .....East Orange
George T. Tracy (1953) .....Beverly
Rudolph C. Schretzmann (1953) .....Englewood
Benjamin F. Slobodien (1954) .....Perth Amboy
James F. Gleason (1954) .....Ventnor

Publication

J. Lawrence Evans, Jr., *Chairman* (1954) .....Leonia
Joseph E. Mott, (1952) .....Paterson
Ralph M. L. Buchanan (1953) .....Phillipsburg
Marcus H. Greifinger, *Ex-Officio* .....Newark
Henry A. Davidson, *Adviser* .....Trenton

Scientific Work

First District—John W. Gray (1954) .....Newark
Second District—George Ginsberg (1955) .....Hoboken
Third District—Patrick H. Corrigan (1956) .....Trenton
Fourth District—S. Emlen Stokes (1952) .....Moorestown
Fifth District—Harold S. Davidson (1953) ....Atlantic City

Honorary Membership

Royal A. Schaaf, *Chairman* (1954) .....Newark
Joseph F. Londrigan (1952) .....Hoboken
Spencer T. Snedecor (1953) .....Hackensack

Woman's Auxiliary

Lewis C. Fritts, *Chairman* (1953) .....Somerville
Norman Nathanson (1952) .....Long Branch
Baxter H. Timberlake (1953) .....Ventnor
Vincent P. Del Duca (1954) .....Camden
William E. Bray (1954) .....Pemberton

Medical Education

Francis M. Clarke, *Chairman* (1953) .....New Brunswick
Henry B. Decker (1952) .....Camden
Stuart Z. Hawkes (1954) .....Newark
Samuel A. Cosgrove (1955) .....Jersey City
Ernest F. Purcell (1956) .....Trenton

Annual Meeting

Asher Yaguda, *Chairman* (1954) .....Newark
Harrold A. Murray (1952) .....Newark
Joseph P. Donnelly (1952) .....Jersey City
Johannes F. Pessel (1953) .....Trenton
William W. Hersohn (1953) .....Atlantic City

Scientific Program

Johannes F. Pessel, *Chairman* .....Trenton
Chairmen and Secretaries of the Scientific Sections

Scientific Exhibit

William W. Hersohn, *Chairman* .....Atlantic City
Robert B. Durham .....Atlantic City
Milton Ackerman .....Atlantic City

WELFARE COMMITTEE

Samuel Blaugrund, *Chairman* .....Trenton
Sigurd W. Johnsen, *Ex-Officio* .....Passaic
Marcus H. Greifinger, *Ex-Officio* .....Newark
Baxter H. Timberlake (Atlantic County) .....Ventnor
John F. Perez .....Atlantic City
Joseph McGahn .....Atlantic City
Stewart F. Alexander (Bergen County) .....Park Ridge
Edward V. Sexton .....Teaneck
Rudolph C. Schretzmann .....West Engelwood
William E. Bray (Burlington County) .....Pemberton
R. Winfield Betts .....Medford
William Braun (Camden County) .....Camden
James P. Harbeson .....Camden
Charles O. Tyler .....Haddonfield
Samuel B. Hughes (Cape May County) .....Wildwood
Albert B. Kump (Cumberland County) .....Bridgeton
Mary Bacon .....Bridgeton
Stuart Z. Hawkes (Essex County) .....Newark
Kenneth E. Gardner .....Bloomfield
Otto G. Matheke .....Newark
Nicholas A. Antonius .....Newark
William H. Hahn .....Newark
Joseph I. Echikson .....Newark
Isaac N. Patterson (Gloucester County) .....Westville
Chester I. Ulmer .....Gibbstown
Hugh H. Tyndall (Hudson County) .....Weehawken
Vincent P. Butler .....Jersey City
Ray E. Trussell (Hunterdon County) .....Flemington
Raymond J. Germain .....High Bridge
John L. Wikoff (Mercer County) .....Trenton
R. John Cottone .....Trenton
C. Howard Rothfuss (Middlesex County).....Woodbridge
John S. Van Mater .....New Brunswick
Harry R. Brindle (Monmouth County) .....Asbury Park
C. Byron Blaisdell .....Asbury Park
John C. Clark .....Asbury Park
F. Clyde Bowers (Morris County) .....Mendham
William G. Talmage .....Succasunna
Alvin A. Rosenberg .....Morristown
Blackwell Sawyer (Ocean County) .....Toms River
Raymond A. Taylor .....Lakewood
Joseph E. Mott (Passaic County) .....Paterson
H. Hale Hollingsworth .....Clifton
Morris Joseph .....Passaic
Harry F. Suter (Salem County) .....Penns Grove
John S. Madara .....Salem
Lewis C. Fritts (Somerset County) .....Somerville
George E. Barbour .....Somerville
George F. Catlett (Sussex County) .....Newton
Jack J. Caleca .....Andover
Louis Wegryn (Union County) .....Elizabeth
Edward G. Bourns .....Westfield
Herschel S. Murphy .....Roselle
Frederic W. Lathrop .....Plainfield
Ralph M. L. Buchanan (Warren County) .....Phillipsburg
Timothy H. Spillane .....Phillipsburg
John McDonald, Jr. .....Belvidere
Mrs. Thomas H. McGlade (Auxiliary)....West Collingswood

SPECIAL COMMITTEE TO THE WELFARE COMMITTEE

Medical School

Stuart Z. Hawkes, *Chairman* .....Newark
Stewart F. Alexander, *Vice-Chairman* .....Park Ridge
Vincent P. Butler .....Jersey City
John S. Van Mater .....New Brunswick
James G. Kehler .....Woodbury
William G. Herrman .....Deal
Henry B. Decker, *Trustee Adviser* .....Camden

SUBCOMMITTEES TO THE WELFARE COMMITTEE

Legislation

C. BYRON BLAISDELL, *Chairman* ..... Asbury Park
ADOLPH WEGROCKI, *Vice-Chairman* ..... Newark
H. HALE HOLLINGSWORTH ..... Clifton
R. JOHN COTTONE ..... Trenton
BAXTER H. TIMBERLAKE ..... Ventnor
WALTER F. PHELAN ..... Elizabeth
JAMES S. SHIPMAN ..... Camden
STEWART F. ALEXANDER ..... Park Ridge
ALDRICH C. CROWE, *Trustee Adviser* ..... Ocean City
JOSEPH F. LONDRIGAN, *Executive Secretary* ..... Hoboken
MRS. ANTON P. RANDAZZO, (Auxiliary) ..... Passaic

Medical Practice

ALBERT B. KUMP, *Chairman* ..... Bridgeton
HERSCHEL S. MURPHY, *Vice-Chairman* ..... Roselle
EDWARD T. LAWLESS ..... Upper Montclair
FLORENTINE M. HOFFMAN ..... New Brunswick
HAROLD C. COX ..... Highbtstown
ASHER YAGUDA ..... Newark
JOHN L. VARRIANO ..... Jersey City
ELMER J. ELIAS ..... Trenton
JOHN L. OLPP ..... Tenafly
RALPH A. YOUNG ..... Linden
D. WARD SCANLAN ..... Atlantic City
ANDREW C. RUOFF ..... Union City
CLARENCE B. WHIMS ..... Ventnor
ROYAL A. SCHAAF, *Trustee Adviser* ..... Newark

Public Health

JOSEPH I. ECHIKSON, *Chairman* ..... Newark
VINCENT P. DEL DUCA, *Vice-Chairman* ..... Camden
NATHAN SWERN ..... Trenton
WILLIAM O. WUESTER ..... Elizabeth
JEROME G. KAUFMAN ..... Newark
HARRY J. WHITE ..... Metuchen
FREDERIC W. LATHROP ..... Plainfield
REINOLD W. terKUILE ..... Ridgewood
JOHN D. PREECE ..... Tr nton
HARRISON F. ENGLISH ..... Trenton
S. WILLIAM KALB ..... Newark
H. EUGENE READING ..... Paterson
RALPH M. L. BUCHANAN ..... Phillipsburg
ELTON W. LANCE ..... Rahway
ROBERT L. McKIERNAN ..... New Brunswick
HARROLD A. MURRAY, *Trustee Adviser* ..... Newark
MRS. R. JOHN COTTONE (Auxiliary) ..... Trenton

Public Relations

JOSEPH E. MOTT, *Chairman* ..... Paterson
WILLIAM E. BRAY, *Vice-Chairman* ..... Pemberton
HARRY F. SUTER ..... Penns Grove
FRANK S. FORTE ..... Newark
JOSEPH R. JEHL ..... Clifton
JOHN L. WIKOFF ..... Trenton
ARTHUR P. TREWHELLA ..... Jersey City
JOHN S. VAN MATER ..... New Brunswick
STANLEY TESKEY ..... Bernardsville
JOHN W. HOLLAND ..... Atlantic City
EDWIN R. RISTINE ..... Camden
CHARLES CUNNINGHAM, JR. ..... Vineland
DAVID B. ALLMAN, *Trustee Adviser* ..... Atlantic City
MRS. STEWART F. ALEXANDER (Auxiliary) ..... Park Ridge

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON PUBLIC HEALTH

Adult Disease Control

NATHAN SWERN, *Chairman* ..... Trenton

Cancer Control

WILLIAM O. WUESTER, *Chairman* ..... Elizabeth
WILLIAM E. BRAY ..... Pemberton
JAMES S. GALLO ..... Paterson
OTTO R. HOLTERS ..... Asbury Park
JOSEPH I. ECHIKSON ..... Newark
W. JAMES MARQUIS ..... East Orange
H. WESLEY JACK ..... Camden
JOHN L. OLPP ..... Tenafly
NICHOLAS M. ALTER ..... Jersey City
FRANK M. MASTROIANNI ..... Roselle Park
GEORGE P. KOECK ..... Newark
VICTOR B. SEIDLER ..... Montclair
SALVATORE GIORDANO ..... Morristown
JOSEPH CAMARDA ..... Lakehurst

Cardio-Vascular Diseases

JEROME G. KAUFMAN, *Chairman* ..... Newark
HARRY BLOCH ..... Elizabeth
NORMAN REITMAN ..... New Brunswick
HARVEY E. NUSSBAUM ..... Newark
LOUIS F. ALBRIGHT ..... Asbury Park
FRANK J. ALTSCHUL ..... Long Branch
HAROLD K. EYNON ..... Camden
G. BARTON BARLOW ..... Englewood
THOMAS J. WHITE ..... Jersey City
ROBERT B. DURHAM ..... Atlantic City
JOHN A. KINCZEL ..... Trenton
ROYAL S. SCHAAF ..... Newark
JAMES E. PHELPS ..... Paterson

Chest Diseases

HARRY J. WHITE, *Chairman* ..... Metuchen
J. S. D. EISENHOWER ..... Wildwood
MARCUS W. NEWCOMB ..... Browns Mills
JOSEPH A. SMITH ..... Glen Gardner
MARTIN H. COLLIER ..... Blackwood
HAROLD S. HATCH ..... Morristown
RUFUS R. LITTLE ..... Oradell
CHARLES HYMAN ..... Atlantic City
PAUL KLEMPNER ..... Trenton
HENRY A. BRODKIN ..... Newark
HOMER H. CHERRY ..... Paterson
JOHN E. RUNNELLS ..... Scotch Plains
A. JOSEPH HUGHES ..... Camden
PAUL GEARY ..... Plainfield
FREDERIC J. QUIGLEY ..... Jersey City

Consultant

MR. WILLIAM H. MACDONALD (Dept. of Health) ..... Trenton

Child Health

FREDERIC W. LATHROP, *Chairman* ..... Plainfield
GEORGE J. McDONNELL ..... Freehold
ABRAM L. VAN HORN ..... Far Hills
EDWARD P. DUFFY, JR. ..... Belleville
HARROLD A. MURRAY ..... Newark
WILLIAM F. MATTHEWS ..... Montclair
WALTER L. MITCHELL, JR. ..... Newark
GEOFFREY W. ESTY ..... Princeton
WILLIAM L. RUMSEY, JR. ..... Elizabeth
JOSEPH F. RAFFETTO ..... Asbury Park
JULIUS LEVY ..... East Orange
ARTHUR HEYMAN ..... Newark
ISRAEL J. WOLF ..... Paterson
HYMAN P. FINE ..... Perth Amboy

Conservation of Vision and Hearing

REINHOLD W. terKUILE, *Chairman* ..... Ridgewood
JAMES S. SHIPMAN ..... Camden
ROBISON D. HARLEY ..... Atlantic City
GEORGE F. WORCESTER ..... Englewood
A. RUSSELL SHERMAN ..... Newark
JOSEPH H. KLER ..... New Brunswick
GEORGE A. CORIO ..... Trenton
S. EUGENE DALTON ..... Ventnor

Maternal Welfare

JOHN D. PREECE, *Chairman* ..... Trenton
SAMUEL A. COSGROVE ..... Jersey City
ROBERT A. MACKENZIE ..... Asbury Park
STANTON H. DAVIS ..... Plainfield
GEORGE B. GERMAN ..... Merchantville
RAYMOND T. POTTER ..... East Orange
GERALD W. HAYES ..... East Orange
J. CARLISLE BROWN ..... Atlantic City
FELIX H. VANN ..... Englewood
PERCY L. SMITH ..... Trenton
HERSCHEL S. MURPHY ..... Roselle
THEODORE K. GRAHAM ..... Paterson
SAMUEL G. BERKOW ..... Perth Amboy
HERBERT F. JOHNSON ..... Camden

Mental Hygiene

HARRISON F. ENGLISH, *Chairman* ..... Trenton
THEODORE R. ROBIE ..... East Orange
LEWIS H. LOESER ..... Newark
LUMAN H. TENNEY ..... Princeton
DAVID W. McCREIGHT ..... Marlboro
HENRY A. DAVIDSON ..... Trenton
ROLAND J. LYNCH ..... Secaucus
J. BERKELEY GORDON ..... Marlboro
EDWARD P. DUFFY, JR. ..... Belleville

Consultants

EDWARD J. HUMPHREYS (Dept. Inst. & Agencies) ..... Trenton
J. KENDALL WALLIS ..... Princeton

PUBLIC HEALTH ADVISORY COMMITTEES—Continued

Nutrition

S. William Kalb, *Chairman* ..... Newark

Rehabilitation

H. Eugene Reading, *Chairman* ..... Paterson
John J. Flanagan ..... Newark
Henry H. Kessler ..... Newark
Henry Briggs ..... East Orange
Paul J. Finegan ..... Trenton
Frederick G. Dilger ..... Hackensack
David B. Allman ..... Atlantic City
Elmer P. Weigel ..... Plainfield
Oswald R. Carlander ..... Camden
Robert J. Neville ..... Hackensack
Harold G. Kunz ..... Montclair
Leopold Szerlip ..... Newark

Rural Health

Ralph M. L. Buchanan, *Chairman* ..... Philipsburg
R. Winfield Betts ..... Medford
Carl N. Ware ..... Shiloh
William G. Harris ..... Mullica Hill
John W. Hardy ..... Farmingdale
John B. Hopper ..... Mendham
C. Spencer Davison ..... Salem
Lewis C. Fritts ..... Somerville
John B. Fuhrmann ..... Flemington
Lester R. Eddy ..... Sussex

School Health

Elton W. Lance, *Chairman* ..... Rahway
K. Virginia Maurer ..... Livingston
David W. Green ..... Salem
Joseph R. Jehl ..... Clifton

Venereal Disease Control

Robert L. McKiernan, *Chairman* ..... New Brunswick
Charles H. deT. Shivers ..... Atlantic City
John C. Clark ..... Asbury Park
George W. Irmish ..... Trenton
Herman H. Goldstein ..... Elizabeth
William K. Wheeler ..... Newark
William C. Wilentz ..... Perth Amboy
Irwin Markowitz ..... Jersey City

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON MEDICAL PRACTICE

Anesthesiology

Edward T. Lawless, *Chairman* ..... Upper Montclair
Durant K. Charleroy ..... Trenton
Abraham L. Dear ..... Newark
Leo J. Fitzpatrick ..... West Englewood
Irving Hayman ..... Paterson
Lester W. Netz ..... Hackensack
Herman I. Roseman ..... Glen Ridge

General Practice

D. Ward Scanlan, *Chairman* ..... Atlantic City
G. Ruffin Stamps ..... Atlantic City
Winton H. Johnson ..... Hackensack
Luis E. Viteri ..... Mount Holly
Isaac N. Patterson ..... Westville
Paul Klempner ..... Trenton
Morton F. Trippe ..... Asbury Park
Aaron H. Horland ..... Newark

Group Practice

Clarence B. Whims, *Chairman* ..... Ventnor
Eugene J. Luippold ..... Boonton
Orlo H. Clark ..... Passaic
Maynard G. Bensley ..... Summit
DeWitt H. Smith ..... Princeton
Royal S. Schaaf ..... Newark

Hospital Relationships

Florentine M. Hoffman, *Chairman* ..... New Brunswick
J. Harris Underwood ..... Woodbury
Watson B. Morris ..... Springfield
J. Lawrence Evans ..... Woodcliff
Leonard S. Ellenbogen ..... Atlantic City
John F. Johnson ..... Trenton
Francis M. Clarke ..... New Brunswick

Laboratory Medicine

Asher Yaguda, *Chairman* ..... Newark
William G. Bernhard ..... Short Hills
Edwin H. Albano ..... East Orange
William W. Hersohn ..... Margate City
Thomas K. Rathmell ..... Trenton
A. Hobson Davis ..... Paterson

Nursing

Andrew C. Ruoff, *Chairman* ..... Union City
L. Elizabeth Weber ..... Union City
Harold Goldberg ..... Newark
Gerald Sinnott ..... Jersey City

Pharmaceutical Problems

John L. Varriano, *Chairman* ..... Jersey City
George M. Knowles ..... Hackensack
Harold Sager ..... Bayonne
Anthony DiIelsi ..... Camden

Physical Medicine

Elmer J. Elias, *Chairman* ..... Trenton
Bror S. Troedsson ..... Orange
Thomas P. McConaghy ..... Camden
Joseph F. A. RuBacky ..... Passaic
F. B. Lane Haines ..... Ocean City

Radiology

John L. Olpp, *Chairman* ..... Tenafly
Harry R. Brindle ..... Asbury Park
Peter Gianquinto ..... Newark
Benjamin Copleman ..... Perth Amboy
Harry J. Perlberg ..... Jersey City
William H. Seward ..... Orange
Winthrop H. Hall ..... Westfield

Welfare Services

Harold C. Cox, *Chairman* ..... Hightstown
Richard T. Buckley, Jr. ..... Maple Shade
Donald G. Reynolds ..... Freehold
John F. Johnson ..... Trenton

Workmen's Compensation and Industrial Health

Ralph A. Young, *Chairman* ..... Linden
Thomas M. Thompson ..... Highland Park
C. Scott McKinley ..... Plainfield
L. Holland Whitney ..... Newark
Walter W. Mockett ..... Maywood
Daniel F. Featherston ..... Asbury Park

SPECIAL COMMITTEES

Physician Resources

William G. Herrman, *Chairman* ..... Deal
L. Samuel Sica, *Vice-Chairman* ..... Trenton
Andrew F. McBride, Jr. ..... Paterson
Frederick S. Taber ..... New Brunswick
Albert B. Kump ..... Bridgeton
F. Clyde Bowers ..... Mendham

Emergency Education Program

Henry B. Decker, *Chairman* ..... Camden
Sigurd W. Johnsen ..... Passaic
Harrold A. Murray ..... Newark
Elton W. Lance ..... Rahway
Marcus H. Greifinger ..... Newark
George J. Young ..... Morristown
David B. Allman ..... Atlantic City
William F. Costello ..... Dover

WOMAN'S AUXILIARY

Officers

President, MRS. THOMAS H. McGLADE.....West Collingswood
President-Elect, MRS. EDWARD H. DYER.....Ventnor
First Vice-President, MRS. FRANK S. FORTE.....Newark
Second Vice-Pres., MRS. PAUL E. RAUSCHENBACH....Paterson
Rec. Secretary, MRS. BERTRAM J. L. SAUERBRUNN...Elizabeth
Cor. Secretary, MRS. FREDERICK G. WANDALL.....Pitman
Treasurer, MRS. ASHER YAGUDA .....Newark

Advisory Board

MRS. WILLIAM E. DODD .....Beach Haven
MRS. FREDERICK G. WANDALL .....Pitman
MRS. LODOVICO MANCUSI-UNGARO .....Newark
MRS. ROBERT B. WALKER .....Highland Park
MRS. R. JOHN COTTONE .....Trenton

OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	SECRETARY	REPORTER
ATLANTIC	Anthony G. Merendino, Atlantic City	Louis Rosenberg, Atlantic City	Leonard B. Erber, Atlantic City
BERGEN	Edward V. Sexton, Teaneck	John E. McWhorter, Englewood	John E. McWhorter, Englewood
BURLINGTON	T. Bruce Dickson, Riverton	Richard T. Buckley, Jr., Maple S.	William F. Betsch, Moorestown
CAMDEN	Walter A. Crist, West Collingswood	William Braun, Camden	James P. Harbeson, Haddonfield
CAPE MAY	Francis A. Hauck, Sea Isle City	Carl J. Records, Cape May	Marcus Fath, Wildwood
CUMBERLAND	Edwin C. Greene, Bridgeton	Mary Bacon, Bridgeton	Frank J. Aitken, Bridgeton
ESSEX	Kenneth E. Gardner, Bloomfield	Marcus H. Greifinger, Newark	Elizabeth R. Brackett, Nutley
GLOUCESTER	Anthony J. DiMarino, Paulsboro	Clarence A. Bowersox, Woodbury	Louis K. Collins, Glassboro
HUDSON	William J. Gleeson, Jersey City	Joseph P. Donnelly, Jersey City	John L. Varriano, Jersey City
HUNTERDON	A. John Bambara, Flemington	John B. Fuhrmann, Flemington	John B. Fuhrmann, Flemington
MERCER	Ferdinand K. Engelhart, Trenton	W. Laurence Bonnet, Trenton	W. Laurence Bonnet, Trenton
MIDDLESEX	Hyman P. Fine, Perth Amboy	Louis Perillo, Perth Amboy	Martha F. Leonard, Highland P.
MONMOUTH	J. Berkeley Gordon, Marlboro	Howard C. Pieper, Keyport	Sidney M. Hodas, Red Bank
MORRIS	C. Archie Crandall, Greystone Park	J. Landon Voss, Morristown	Theodore R. Failmezger, Madison
OCEAN	Carmine L. Pecora, Toms River	Richard R. Gove, Jr., Brandt B.	Jesse Schulman, Lakewood
PASSAIC	Sandor A. Levinsohn, Paterson	Joseph R. Jehl, Clifton	Leopold E. Thron, Paterson
SALEM	R. Louis Silverman, Penns Grove	Harry F. Suter, Penns Grove	Wilbur S. Davison, Pennsville
SOMERSET	Irving Klompus, Bound Brook	John L. Spaldo, Somerville	John L. Spaldo, Somerville
SUSSEX	Leslie Vermes, Franklin	Robert F. Ficker, Ogdensburg	Martin I. Kirschner, Vernon
UNION	Louis S. Wegryn, Elizabeth	Edward G. Bourns, Westfield	Leslie M. Townsend, Roselle P.
WARREN	Charles W. Potter, Washington	Raymond Cooper, Washington	John Hampton, Washington

For **HIGH** *Pollen Levels—*

HIGH

Antihistaminic Potency

Neo-Antergan is characterized by high antihistaminic potency—and a high index of safety. It affords prompt, safe, symptomatic relief to the allergic patient during distressing periods of high pollen levels.

Neo-Antergan is *available on prescription only*, and is advertised exclusively to the medical profession.

* * *

Available in coated tablets of 25 mg. and 50 mg. in bottles of 100, 500, and 1,000.

The Physician's Product

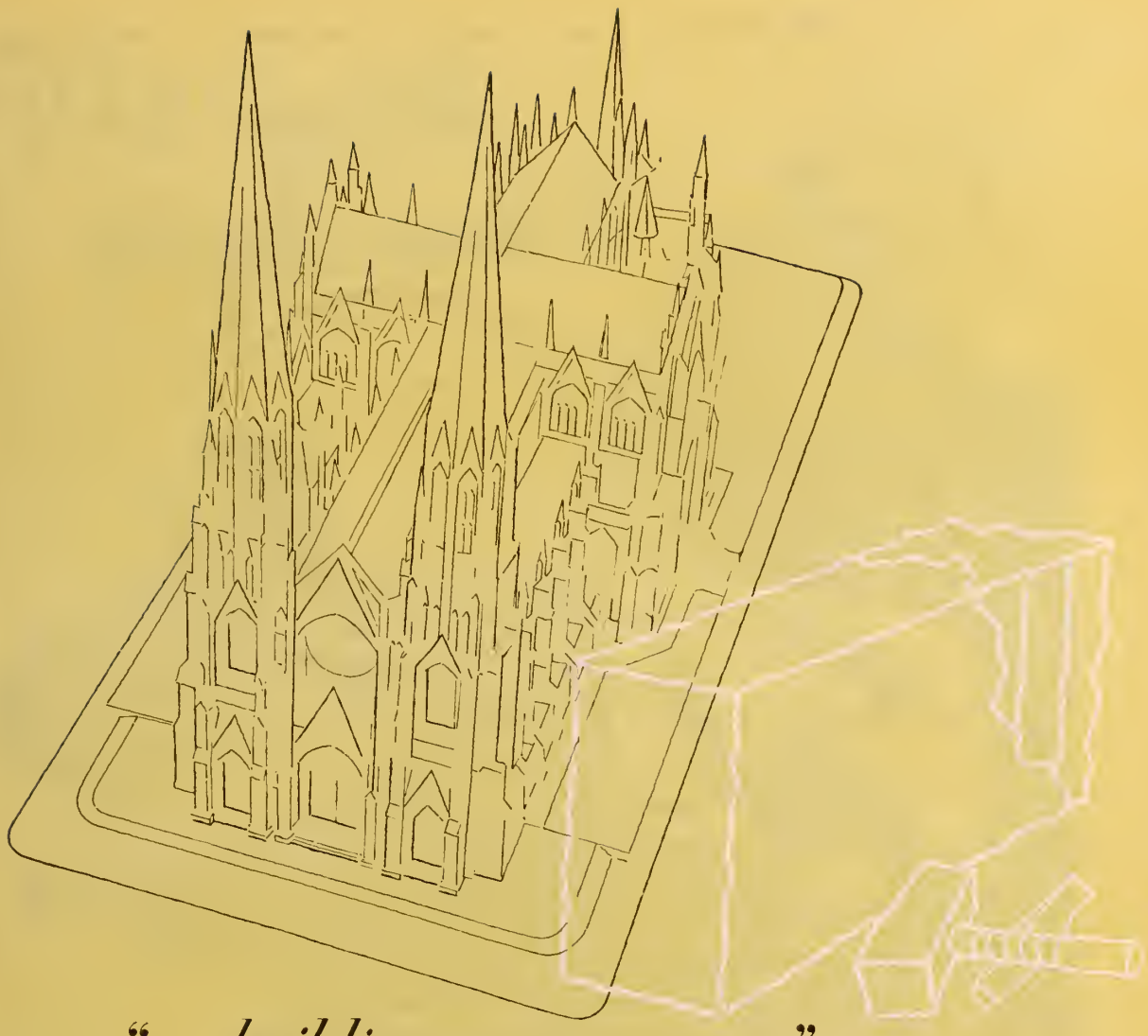
NEO-ANTERGAN®

MALEATE

(Brand of Pyrilamine Maleate)
(Formerly called Pyranisamine Maleate)

COUNCIL ACCEPTED

MERCK & CO., INC.
Manufacturing Chemists
RAHWAY, NEW JERSEY



"....*building* A CATHEDRAL...."

A philosopher stood watching three stonecutters and of each in turn he asked: "What are you doing?" The first said: "I am cutting stone." The second: "Why, I am earning a dollar an hour!" The third said quietly: "I am building a Cathedral."

This is a very old and oft repeated story. We tell it again because its essence, the turn-of-mind of the third stonecutter, shared by chemists, explains the success of the American Chemical Society now celebrating its Diamond Jubilee. The nation's chemists with their deep professional interest far beyond any immediate task, have abundantly fulfilled their credo of "*fostering public welfare and education, aiding the development of our country's industries and adding to the material prosperity and happiness of our people.*"

MALLINCKRODT CHEMICAL WORKS · St. Louis · New York · Montreal

Mallinckrodt

ETHER FOR ANESTHESIA · SODA LIME · PRECIPITATED BARIUM SULFATE · UROKON SODIUM 30% · HIPPURAN · OVER 1500 PRESCRIPTION CHEMICALS

· MANUFACTURERS OF FINE CHEMICALS AND DRUGS FOR THE MEDICAL PROFESSION · SINCE 1867 ·

What cigarette do you smoke?

Make your own 30-Day Camel Mildness Test in your own "T-Zone"—that's T for Throat, T for Taste. See if you don't change to Camels for keeps.

R. J. Reynolds Tobacco Co
Winston-Salem, N. C.

More People smoke Camels

THAN ANY OTHER CIGARETTE

The "estrogen preferred by us is 'Premarin,' a mixture of conjugated estrogens, the principal one of which is estrone sulfate."

Hamblen, E. C.: North Carolina M. J. 7:533 (Oct.) 1946.

In treating the menopausal syndrome with "Premarin," Perloff* reports that "Ninety-five and eight tenths per cent of patients treated with 3.75 mg. or less daily obtained complete relief of symptoms"; also, "General tonic effects were noteworthy and the greatest percentage of patients who expressed clear-cut preferences for any drug designated 'Premarin.'"

Thus, the sense of "well-being" usually imparted represents a "plus" in "Premarin" therapy which not only gratifies the patient but is conducive to a highly satisfactory patient-doctor relationship.

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg. and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

*Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

"PREMARIN"®

"Premarin" contains estrone sulfate plus the sulfates of equilin, equilenin, β-estradiol, and β-dihydroequilenin. Other α- and β-estrogenic "diols" are also present in varying amounts as water-soluble conjugates.

Estrogenic Substances (water-soluble) also known as Conjugated Estrogens (equine)

Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.

Ayerst®

5003 R

hay fever . . .

Neo-Synephrine acts quickly to relieve the distress of hay fever, shrinks the engorged mucous membranes, checks hypersecretion, permits free breathing and promotes comfort.

It is notable for

- excellent tolerance
- relative freedom from compensatory congestion
- lack of appreciable interference with ciliary action.

Its effectiveness is undiminished by repeated use—insuring topical relief throughout the hay fever season.

NASAL USE	OPHTHALMIC USE
¼% solution (plain and aromatic), 1 oz. bottles; 1% solution, 1 oz. bottles; ½% water soluble jelly, ⅝ oz. tubes.	⅛% low surface tension, aqueous solution, isotonic with tears, ½ oz. bottles.

Neo-Synephrine®
HYDROCHLORIDE

Prompt and Prolonged HAY FEVER RELIEF

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

NEO-SYNEPHRINE, TRADEMARK REG. U. S. & CANADA.
BRAND OF PHENYLEPHRINE

clinical dependability

American Pharmaceutical Company products are manufactured by qualified technicians under the vigilance of competent laboratory scientists who perform rigid tests during every step of manufacture. Both physician and patient are thus assured of fidelity in manufacture and constancy in quality.

APC STANDARD OF QUALITY

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Aminophylline Suppositories **APC** 0.5 Gm.
Aminophylline Tablets **APC** 0.1 Gm., 0.2 Gm.
Aminophylline Tablets **APC** Enteric coated 0.1 Gm., 0.2 Gm.
Ascorbic Acid Crystals **APC**
Ascorbic Acid Tablets **APC** 25 mg., 50 mg., 100 mg.
Diethylstilbestrol **APC** 0.5 mg., 1 mg., 5 mg.
Diphenylhydantoin Sodium Capsules **APC** 0.1 Gm.
Folic Acid Tablets **APC** 5 mg.
Nicotinamide Tablets **APC** 50 mg., 100 mg.
Nicotinic Acid Powder **APC**
Nicotinic Acid Tablets **APC** 25 mg., 50 mg., 100 mg.
Oleovitamin A Capsules **APC** 25,000 U.S.P. Units
Para-Aminosalicylic Acid Powder **APC** 1 lb.
Para-Aminosalicylic Acid Tablets **APC** 0.5 Gm.
Para-Aminosalicylic Acid Tablets **APC** Brown coated 0.5 Gm.
Percomorph Liver Oil **APC** 50% with Viosterol 10 cc., 50 cc.
Riboflavin Tablets **APC** 1 mg., 5 mg., 10 mg.
Sodium Para-Aminosalicylate Powder **APC** 1 lb.
Sodium Para-Aminosalicylate Tablets **APC** 0.5 Gm.
Sulfadiazine Tablets **APC** 0.5 Gm.
Sulfamerazine Tablets **APC** 0.5 Gm.
Thiamine Hydrochloride Tablets **APC** 1 mg., 5 mg., 10 mg.
Viosterol in Oil **APC** 10 cc., 50 cc.

AMERICAN PHARMACEUTICAL COMPANY

MANUFACTURING CHEMISTS
NEW YORK 54, N. Y.

Growth Rates
AND IMPROVED NUTRITION

ACCORDING to an eminent authority,[1] increased growth rates of children are largely attributable to improved nutrition; also, "much evidence exists that current diets are often unsatisfactory." The nutrients most commonly deficient in diets of children are protein, calcium, thiamine, riboflavin, and ascorbic acid.

Ovaltine in milk—a palatable food supplement, readily accepted by children and easily digested—presents an excellent means of helping to bring even grossly deficient diets to optimal nutritional levels. It provides a wealth of biologically adequate protein, easily emulsified fat, readily utilized carbohydrate, and essential vitamins and minerals. The addition of three servings daily to the child's diet, either at mealtime or between meals, assures nutrient intake in keeping with the dietary allowances of the National Research Council—an essential for promoting optimal growth rate.

The nutrient contribution of three servings of Ovaltine in milk is defined in the appended table.

1. Jeans, P. C.: Feeding of Healthy Infants and Children, J.A.M.A. *142*:806 (Mar. 18) 1950.

THE WANDER COMPANY, 360 N. MICHIGAN AVE., CHICAGO 1, ILL.

Ovaltine

Three servings daily of Ovaltine, each made of ½ oz. of Ovaltine and 8 oz. of whole milk, provide:*

PROTEIN	32 Gm.	VITAMIN A	3000 I.U.
FAT	32 Gm.	VITAMIN B_1	1.16 mg.
CARBOHYDRATE	65 Gm.	RIBOFLAVIN	2.0 mg.
CALCIUM	1.12 Gm.	NIACIN	6.8 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN C	30.0 mg.
IRON	12 mg.	VITAMIN D	417 I.U.
COPPER	0.5 mg.	CALORIES	676

*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving, they are virtually identical in nutritional content.

predictable control of hay fever

Chlor-*Trimeton* Maleate, milligram for milligram the most potent antihistamine available, allows the physician to predict a definitive and favorable result in symptomatic control of hay fever. Often successful when others fail, and producing few and minimal side effects, Chlor-*Trimeton* Maleate is a drug of choice for antihistamine therapy.

Chlor-*Trimeton**

maleate tablets

(brand of chlorprophenpyridamine maleate)

Chlor-*Trimeton* Maleate is available in 4 mg. tablets.

*T.M.

Schering CORPORATION • BLOOMFIELD, N. J.

Chlor-Trimeton

SCHERING

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 564

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month.

VOL. 48, No. 8 AUGUST, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE

As we look forward to our state activities for the coming year, the most striking feature of our program is the new approach we have taken to reach solutions for the problems which confront us.

The House of Delegates unanimously adopted a new By-Law proposed by the Board of Trustees, whereby an Executive Committee of the Board of Trustees is authorized to function. This innovation was tried experimentally last year under Dr. Crowe's administration and was found to be especially helpful in dealing with emergency matters. The Board of Trustees has for many years carried an increasingly heavy load of responsibility and has had to make increasingly numerous decisions concerning policy and matters of vital concern to the welfare of the Society. It is hoped that the functioning of the Executive Committee will effectively lighten the burdens of the members of the Board of Trustees and facilitate their work.

The Executive Committee will also act as a liaison agency between the Welfare Committee with its subcommittees, and the Board of Trustees. It will meet one hour before the subcommittees meet, and one of its members will act as Trustee adviser to each of the subcommittees. It is hoped that in this manner many of the bottlenecks can be removed, so that matters approved by the Welfare Committee can be brought before the Board of Trustees for early action and put into effect as soon as they are approved by the Board.

I wish to express my sincere thanks to all of our members who have accepted appointments on the Welfare Committee, its subcommittees, and all the advisory committees. These men are devoting a great deal of their time and are sacrificing much of their leisure in an at-

tempt to solve the many problems confronting our Society. It is all part of the remarkable spirit of cooperation shown by our officers and all our members who so willingly take on extra duties in order to coordinate and expedite our programs.

It is therefore not asking too much from our general membership to expect that they abide by and loyally support the policies thus evolved by The Medical Society of New Jersey. Yet, in important matters, from time to time we find individual members who act directly in opposition to these policies. Let me give you an illustration. Recently a bill came before the Legislature to permit an individual who was graduated from an unapproved medical school to take the examination for licensure given by the State Board of Medical Examiners. The policy of our Society has always been that to make exceptions in individual cases, no matter what the elements of personal feeling, would violate the principle of and irreparably weaken the Medical Practice Act. Our Legislative Committee was therefore instructed to oppose this bill, and all the efforts of our Society were used to bring about the defeat of this measure. Yet subsequently we heard from the legislators that a number of physicians had written and telegraphed their individual approval of this bill.

It is hardly fair to expect the best results from us who regularly labor for the good of the Society when our own members openly take sides against us in matters of vital policy. It reflects exactly the condition of disunity that our adversaries would most ardently like to bring about. So I plead with every member: "Support your officers and your organization, especially when a policy has been affirmed and is being challenged, because — 'United we stand, divided we fall'."

Sigurd W. Johnsen, M.D.,
President.

COMMON SENSE IN MEDICAL STATISTICS

Much of today's medical literature is concerned with the gathering of statistical material, and its application to clinical research. A glance at any medical journal will show several papers in which the conclusions are arrived at by statistical methods. Critical study of many of these articles, however, reveals that the statistical observations are faulty, and that their conclusions are thus less tenable. Even without formal mathematical training, the reader can apply certain common-sense yardsticks which will enable him to be more discriminating in his medical reading.

Among the pitfalls into which medical authors may fall are inadequate controls, insufficient sampling, and erroneously weighted statistics. Other errors include those of significance and probability.

In papers presenting comparisons between series of cases, certain criteria should be met. The series should be comparable in size, homogeneity, and degree of disease process. If normal controls are involved, they must be truly normal. This may become a real problem in dealing with a disease such as arteriosclerosis. Here it is extremely difficult to determine that a "normal" subject is completely free of arteriosclerosis. There is simply no readily available test for the detection of latent or subclinical arteriosclerosis.

Errors of sampling are seen in too many medical articles. This is especially common in papers dealing with therapeutic results. A recently published article recommended a particular therapeutic regimen for hypertension, based on seven cases in which there was minimal lowering of the blood pressure after

four weeks' observation. In such a protean disease as hypertension, this sample was obviously far too small, the changes in blood pressure too slight to be of significance, and the period of observation much too brief. On the other hand, in an almost universally fatal condition, (like tuberculous meningitis) even a few cases showing good results with a given treatment may be an adequate sample, and reported results may be genuinely significant. The reader should have a basic knowledge of the subject under discussion, an idea as to the natural course of the disease, and information concerning other forms of therapy before he can accept the conclusions as valid.

Unfair weighting of statistics is another source of misleading information. In many papers, cases are excluded from the final statistical results when they properly should be included. This error is especially common in deriving mortality figures.

The reader is advised to be alert to errors in the presentation and interpretation of statistics, in order to achieve greater benefit from his pursuit of medical literature.

R. D. G.

BRITAIN'S HEALTH SERVICE

Enough time has elapsed to permit some evaluation of Britain's National Health Service. The *British Medical Journal* summarizes its conclusions in temperate words, the fruit of intimate day by day experience. Here, without further comment from us, are our contemporary's findings:

"Not only are we facing bankruptcy because of the Utopian finances of the welfare state. We are, as a profession, facing the bankruptcy of a policy, a policy based on the decisions of the Government during a war for survival and put into execution by a Minister of Health who could not resist the temptation to behave like a Fairy Godmother. . . ."

"The Health Centre has failed to materialize. It was to be the remedy for the partial isolation of the general practitioner. The general practitioner was promised 'greater opportunities in the hospital life of the country,' but apparently, decisions by Regional Hospital Boards have tended to convert general-practitioner hospitals into specialty units. On both medical and economic fronts, the Minister of Health has failed to do all those things he promised to do."

"What must astound the historian of the future is the failure in what is termed a 'Health Service' to enlarge and encourage the Public Health Service, the members of which have perhaps had the hardest knock of all."

"The public at large welcomes what limited benefits the Service brings to it—principally, perhaps, the benefit of not having to pay directly for medical aid at the time of receiving it. . . The shocking waste of public money over the inessentials of medicine has left little over for what is more urgently needed. . . . . ."

"The failure of the Minister of Health to provide a fully comprehensive health service lies in the economic mess that has come from appearing to promise people something for nothing. It is difficult to see how the National Health Service can be put on a sound footing and the full resources of modern medicine be at the disposal of the public without considerable readjustment of its economy. The medical profession is discontented and disillusioned, not because of payment or lack of it, for this or that, but because it sees postponed indefinitely the opportunities for improving the medical care of the people."

ORIGINAL ARTICLES

TREATMENT OF CARDIAC EMERGENCIES WITH K-STROPHANTHOSIDE AND LANATOSIDE C

M. C. RITOTA, M.D., Newark, N. J.

In the past few years, I have witnessed several acute and fatal cardiac emergencies in hospitals and in my practice. This has led me to keep prepared and available at all times an "emergency cardiac tray". Several of the hospitals with which I am affiliated now have such a tray. Two preparations should be available to treat emergency cases of acute failure with or without pulmonary edema. It is particularly gratifying to have available rapidly acting cardiotonics especially in an operating room, where cardiac emergencies may develop unexpectedly.

CARDIAC GLYCOSIDES

The active principles of digitalis are "glycosides". The recent therapeutic trend has been to use these pure, chemically standardized, stable glycosides rather than the unstable whole leaf preparations.

From *Digitalis purpurea,* the glycosides digitoxin, gitoxin and gitalin are obtained.

From *Digitalis lanata,* Lanatoside A, Lanatoside B, and Lantoside C are obtained.

From the *Strophanthus kombe,* glycosides Strophanthin K and Strophanthoside K are obtained.

From the seeds of *Strophanthus gratus,* Ouabain is obtained.

Each of these glycosides possesses digitalis properties. They differ, however, in speed of action, degree of absorption, and rate of dissipation. These properties therefore must be evaluated before choosing the desired therapeutic preparation. This paper reviews two of the glycosides which are best suited for handling certain cardiac emergencies: Strophanthoside and Lanatoside.

*Strophosid is the Sandoz Chemical Works brand of a strophanthin glycoside.

1. Chavaz, I.: Arch. Int. Med., 72:168 (1943).
2. Stroud, W. D.: *Diagnosis and Treatment of Cardiovascular Disease,* Philadelphia, F. A. Davis Company (1940).
3. Goldberger, E.: *Heart Disease, Its Diagnosis and Treatment,* Philadelphia, Lea & Febiger (1951).

K-STROPHANTHOSIDE

We have found that this glycoside (Strophosid*) is chemically pure and stable. The action is very rapid, fixation slight, and dissipation rapid. Strophanthin has not been a popular drug in this country. Chavaz,[1] Stroud,[2] and Goldberger[3] discuss the clinical actions of this glycoside, but many clinical reports are not available. Main indications for using strophanthin are:

1. Primarily in acute failure with pulmonary edema and cyanosis.
2. As therapy for angina pectoris.
3. As an aid in differentiating between the presence and absence of early heart failure.

1. *In cardiac failure.* In patients with failure showing cyanosis and dyspnea, I administer 0.25 milligrams of strophanthin (½ cubic centimeter vial of Strophosid*) diluted in 10 cubic centimeters of distilled water. Injection is made very slowly. One particular patient, in orthopneic position, was extremely cyanotic. He had rales in the chest, was gasping and panting for air, and was particularly restless and irritable. Without further delay, I injected 0.25 milligrams of strophanthin diluted in 10 cubic centimeters of distilled water over a period of five minutes. Within three minutes his respiration was less rapid and deeper. Within fifteen minutes the patient was breathing easily and could lay back at a 45 degree angle. Another injection was repeated in eight hours following which he was digitalized and maintained with digitalis whole leaf. The patient made an uneventful recovery.

In administering this medication it is sometimes necessary to inject through the jugular vein. It is best to inject first about 0.1 cubic centimeter and wait for any possible reaction. If no reaction occurs in 10 to 25 seconds, small doses (0.2 or 0.3 cubic centimeters) can be injected at a time, over a total period of four or

five minutes. In this way, all possible side reactions of strophanthin can be avoided. I have never encountered any unpleasant incident employing this technic.

2. *Angina* is often resistant to any form of therapy and sometimes the usual vasodilator, nitroglycerine, produces unpleasant and harmful side effects. In treating these patients, I find it advisable to give 0.1 to 0.25 milligrams of strophanthin (again diluted in 10 cubic centimeters of distilled water) once daily intramuscularly for three to four days (intravenously is not necessary in this indication); then every other day for a week, and then two to three times a week as long as necessary.

3. *As a "test" for heart failure,* I dilute 0.25 milligrams of strophanthin in either 10 cubic centimeters of distilled water, 10 c.c. of 5 per cent glucose, or 10 c.c. of aminophyllin (3.5 grains). The injection intravenously is made over a period of five minutes. If early symptoms and signs of heart failure disappear after a short period of time then we can conclude that early heart failure is present. If symptoms confused with early heart failure persist after strophanthin administration then we can conclude that early heart failure is absent.

The greatest *advantage* of this drug is its extremely rapid rate of action. Appreciable beneficial effect on the heart or venous pressure can be obtained within 5 to 15 minutes.

The following contraindications can be listed:

1. It must not be administered rapidly.
2. It should not be administered to previously digitalized patients since it will mobilize all the digitalis in the body. The resulting large amounts of digitalis in the blood stream may thus result in digitalis poisoning. An exception can be made in cases of extremely acute failure.
3. Doses in excess of 0.25 milligrams should not be used. The dose employed should always be administered in 10 cubic centimeters of distilled water, aminophyllin or 5 per cent glucose.
4. Strophanthin is very toxic to the myocardium.
5. If during the injection of strophanthin any extra systoles occur, it is recommended that the injection be stopped immediately.

In my experience strophanthin is an excellent and safe drug, for the particular conditions indicated, when used as described above. I believe that with a wider use more clinical data could be obtained so that the indications and manner of administration would become better known.

LANTOSIDE C

This cardiac glycoside, obtained from Digitalis lanata, has enjoyed wider use than strophanthin. LaDue,[4] Parsonnet,[5] Tandowsky,[6] and others have reported on its clinical value. Stewart[7] in a recent review pointed out the value of this drug in treating certain cardiac arrhythmias.

I have found Lanatoside C (Cedilanid†) particularly effective in treating (1) arrhythmias—particularly supraventricular tachycardia and (2) heart failure—especially when rapid digitalization is desired.

There is no need for diluting Cedilanid† prior to injection. When a patient is in acute failure intravenous injection of 4 to 8 cubic centimeters (0.8 to 1.6 milligrams of Lanatoside C) will produce digitalization. If 4 cubic centimeters are administered, the ventricular rate will indicate the effectiveness of therapeutic effect. If the ventricular rate is not slowed sufficiently after six hours, a second dose (4 cubic centimeters) should be administered. In auricular fibrillation without failure 4 cubic centimeters are usually sufficient to bring about a reduced rate. Digitalization can usually be accomplished within 6 to 10 hours with intravenous administration of 4 to 8 cubic centimeters.

A case will illustrate my particular method of using this drug. A 57 year old male was first seen complaining of shortness of breath. He was sitting up in bed gasping for air; his pulse rate was rapid and irregular and some of the pulse beats were imperceptible. Upon auscultation a ventricular rate with auricular fibrillation of 160 to 170 was heard. In the posterior aspect of his chest there were rales in both bases. We came to the conclusion that this man probably had arteriosclerotic heart disease, with sudden onset of auricular fibrillation and cardiac failure. He was hospitalized immediately and within the time that he went from his home to the hospital, his condition became

†Cedilanid is the trade name of a brand of Lanatoside C prepared by the Sandoz Chemical Works.

4. LaDue, J. S., and Fahr, G.: Am. Heart J., 25:344 (1943).
5. Parsonnet, A. E., and Bernstein, A.: Am. Heart J., 26:39 (1943).
6. Tandowsky, R. M.: Am. Heart J., 29:71 (1945).
7. Stewart, H. J.: Medical Clinics of North America, 34:649 (1950).

worse; he became pale and at times, even cyanotic. At this time, his ventricular rate was even more rapid and imperceptible. His dyspnea worsened. We immediately put him in an oxygen tent. He was in a cold, clammy sweat. It was a question of whether we should use Cedilanid† or Strophosid* at this particular time. On listening to his chest I felt that the edema was not extensive enough to make a definite diagnosis of early pulmonary congestion or pulmonary edema with right-sided failure. Therefore, I injected 6 cubic centimeters of Cedilanid† intravenously at once. For supportive therapy we gave him some 1/6 to 1/8 grain of morphine as well as oxygen. No other medications were indicated at that time. Four cubic centimeters of Cedilanid† were given intravenously and about five hours later his ventricular rate was down to 110 to 120 beats per minute. There was still auricular fibrillation present. Mercuhydrin‡ was then given to help relieve some of the congestive failure, and four to six hours later, an additional 4 cubic centimeters of Cedilanid† were given. The following morning, about ten or twelve hours later, the patient's ventricular rate was about 86 and his rales were completely gone in both bases. He could breathe without any discomfort, his coloring was better, and the diaphoresis disappeared. The following day he was put on whole leaf digitalis for maintenance. He made an uneventful recovery in two or three weeks doing rather well with no complications. An electrocardiogram showed no evidence of any conduction disturbance; there was no evidence of coronary thrombosis or any trace of any recent or old myocardial injury—the only evidence that we could find of heart disease was auricular fibrillation. By laboratory tests and eye ground studies we came to the conclusion that arteriosclerotic heart disease was the basis for the acute episode described.

I have in my experience never witnessed any toxic manifestation with this drug. *Lanatoside C* is rapidly dissipated so that it does not accumulate in the body. This prevents the possibility of accumulating toxic amounts in the patient. *Lanatoside C,* in addition, does not have the marked effect on the myocardium that is shown by strophanthin. *Lanatoside C* also has a rapid onset of action but is a little slower than strophanthin.

CONCLUSIONS

1. No cardioactive drug has, as yet, been developed which can be employed safely for all cardiac conditions. Each physician must find certain drugs that he can use safely for treating particular conditions. In my experience, strophanthin and Lanatoside C possess characteristics which make them ideally suited for the treatment of certain cardiac emergencies.

2. Strophoside* - 0.25 milligrams diluted in 10 cubic centimeters of distilled water is quick acting and can be life saving when employed in heart failure, and angina pectoris. It can be used as a diagnostic test in early heart failure.

3. Cedilanid† - 4 to 8 cubic centimeters are needed for rapid digitalization.

4. These two drugs deserve a place in "emergency cardiac trays" at the hospitals with which I am affiliated and in my own "little black bag".

85 Stuyvesant Avenue

‡Mercuhydrin is a solution of Meralluride and theophylline prepared and tradenamed by the Lakeside Laboratories, Inc.

COURSE IN GASTRO-ENTEROLOGY

The National Gastro-enterological Association announces that its course in gastro-enterology will be given in Chicago, on September 20, 21, 22, 1951. The course is under the direction of Dr. Owen H. Wangensteen, Professor of Surgery of the University of Minnesota, who will serve as surgical co-ordinator; and Dr. I. Snapper, Director of The Mt. Sinai Hospital, N. Y., who will serve as medical co-ordinator.

Drs. Wangensteen and Snapper will be assisted by a distinguished faculty selected from the medical schools in and around Chicago. Their presentations will cover diseases of the mouth, diseases of the esophagus, peptic ulcer, diseases of the stomach, diseases of the pancreas, cholecystic disease, psychosomatic aspects of gastro-intestinal disease, diseases of the liver, diseases of the colon and rectum, and other miscellaneous subjects including pathology and physiology, radiology, gastroscopy, et cetera.

For further information and enrollment write to the National Gastro-enterological Association, 1819 Broadway, New York 23, New York.

THE USE OF THE VARIOUS INSULINS *

WITH SPECIAL REFERENCE TO TIMING

George M. Knowles, M.D., and
J. J. Kristal, M.D., Hackensack, N. J.

Insulin and insulin mixtures are tools in the hands of the physician. Just as the surgeon must have knowledge of how to use scalpels and scissors in operating upon a patient, the physician must know how to use the insulins in the treatment of diabetes mellitus. One surgeon may use one tool for the most part whereas another surgeon may use another, each with good results. Similarly one physician may become accustomed to and use combinations of insulins in certain ways, while another may be skilled in and prefer to use other insulins, with equally good results. This is particularly true in this era of many insulin preparations.

Great strides have been made since the early days of Banting and Best. We now have available a variety of modified insulins, but still clinicians and physiologists remain dissatisfied because: first, the administration remains parenteral; second, their time of action is too short, too long, or too slow; and third, the hypoglycemic effect may be of varying abnormal degree. Best and Hagedorn defined an ideal insulin as one which would be depot in type, and which would release insulin as tissue sugar rises and withhold it as tissue sugar falls, hence controlling hyperglycemia and preventing hypoglycemia.

Insulin is a protein similar to egg albumin and Bence-Jones proteins. It has a molecular weight approximating 35,000. More than 90 per cent of its structure has been identified. Among its component parts are leucine 30 per cent, cystine 12 per cent, arginine 3 per cent, proline 10 per cent, phenylalanine 1 per cent, tyrosine 12 per cent, histidine 4 per cent, lysine 2 per cent, and glutamic acid 21 per cent. It is believed to have at least nine amino-acids and a fairly constant sulphur content of approximately 3.2 per cent. Insulin is levorotatory, is fully soluble in dilute acid and alkali and precipitates at a pH of about 5.3.

There have been diverse modifications of insulin manufactured in various countries and for various purposes. Five preparations of insulin are commonly used in this country.

1. Amorphous Insulin—standard or regular, soluble, often called unmodified—is the original form of insulin. It is slightly acid in solution with a pH approximating 2.8. About 10 per cent of its total protein is inert and may give rise to local or generalized allergic reactions. The reactions if encountered may usually be avoided by using an insulin derived from an animal to which the diabetic is nonsensitive: sheep, pork, or beef. This type of insulin reaches its peak action within four hours and its activity wanes some six to eight hours following moderate doses and eight to twelve hours following large doses. Due to these typical timing characteristics this type of insulin is particularly indicated when speed and short action are most essential: coma, acute infections, pre- and postoperative conditions, and times when intravenous and subcutaneous fluid glucose are given. One may prefer this type of insulin in the acute phase of coronary occlusion or thrombosis and in patients with cerebral vascular disease in whom insulin shock would be particularly dangerous.

2. Crystalline Insulin is merely regular insulin which has been recrystallized. It has a content of 0.02 milligrams of zinc per 100 units of insulin. It contains no inert foreign protein and therefore is less likely to give rise to allergic reactions. Its mode of action as regards timing and its indications are strikingly similar to those of the amorphous type.

3. Protamine Zinc Insulin is a *suspension* which is most insoluble at a pH of 7.2. The Zinc content is 0.2 milligrams per 100 units of insulin in combination with 1.25 milligrams of protamine. Protamines are simple proteins

* Read May 14, 1951, at the Annual Meeting of The Medical Society of New Jersey. This work comes from the Medical Service of the Hackensack (N. J.) Hospital.

which have the capacity of precipitating other proteins when combined with them at definite H ion concentrations. This protamine is obtained from the sperm of Columbia River salmon. The quantity of protamine in this preparation is several times that required to precipitate the amount of insulin present. This insulin preparation is weak, slow, sustained, and somewhat irregular in its action. A single dose injected forms a depot which releases insulin slowly and irregularly. This accounts for the fact that the effect of a single dose may vary with the size of the dose as well as the location of the depot. Differences in effect are due to degree of diffusion of an individual dose and to its accessibility to perfusion by tissue fluids. Generally some action may be demonstrated in four to eight hours after injection. The effect of moderate doses will be strongest in twelve to twenty-four hours and will usually last from thirty to thirty-six hours. Large doses will have a longer effect. For practical purposes its time activity is thought of in terms of twenty-four hours.

There is no advantage in administering protamine zinc insulin more than once daily. As a matter of fact some mild cases may be controlled with fairly good results when given less often. This slow acting insulin is preferably given one-half to one hour before breakfast. However it may be desirable to administer it during evening hours in some cases,—e.g. in workers in night shifts. Owing to the slow absorption of protamine zinc insulin when given daily, there is over-lapping; so that it may be three or four days before any uniform effect may be obtained. The various depots created over several days play an important role in its slow utilization.

Despite the distinct advantage of protamine zinc insulin, three difficulties must be taken into consideration,—(a) failure in severe cases to meet the needs of meal time digestion and absorption of food, (b) production of insulin shock during fasting periods, particularly during the night and early morning hours, and (c) the unpredictable variations due to diversity in the rate of absorption from depots created.

Protamine zinc insulin is indicated in the mild and moderate case of diabetes mellitus and is contra-indicated in the acute emergencies when prompt action is required.

4. Globin Insulin is prepared by mixing insulin in solution with globin which is a fraction of beef hemoglobin. The globin can precipitate insulin mixed with it by varying the pH of the mixture. The generally used preparation has a pH of about 3.7 in order to keep the insulin in solution. It contains 0.3 milligrams of zinc and about 3.8 milligrams of globin for each 100 units of insulin.

The search and need for an insulin preparation intermediate in action between regular and protamine zinc insulin gave rise to the introduction of globin insulin, which many physicians have used satisfactorily for many years. It is indicated in patients who with protamine zinc insulin have a tendency to demonstrate post-prandial glycosuria and nocturnal hypoglycemia. Its peak action in large doses occurs eight to twelve hours after injection and its effect lasts sixteen to twenty-four hours. It may give rise to hypoglycemia in the late afternoon. A distinct advantage of this preparation over protamine zinc insulin is the fact that it is less likely to produce local and general allergic reactions. Its disadvantage is its lack of an overlapping effect.

5. NPH insulin is the newest preparation of insulin available. In its name, N is for Neutral, P is for Protamine, and H is for Hagedorn, the discoverer of protamine, who (with his coworkers)first made crystalline protamine zinc insulin. It is modified with 0.50 milligrams of protamine, and 0.02 to 0.05 of zinc per 100 units of insulin to form crystals of insulin, protamine, and zinc. It is a stable insulin which is intermediate in action between regular insulin and protamine zinc insulin and its time activity is similar to that of globin insulin and to that of a mixture of two parts of regular insulin to one part of protamine zinc insulin. Generally its time activity is greatest during the waking hours of the day and less during the night sleeping hours. It takes two to four hours usually for this insulin to have a demonstrable effect. The peak action in large doses is usually from twelve to sixteen hours and the waning action from twenty-eight to thirty

hours following administration. This insulin too is given as long before breakfast as is possible or practical, preferably an hour or so before breakfast. It will take care of the moderate and some 40 per cent of the severe diabetics. It simplifies treatment in those cases for which protamine zinc insulin is inadequate and requires supplementation. It too has hazards in possible insulin shock before a late lunch or in the mid or late afternoon before the evening meal, and occasionally at night.

The effects of this preparation have been studied since the summer of 1948 by a number of clinicians:—MacBryde, Colwell, Izzo, Ricketts, Gabriele and Marble, White, Dolger, and others, all of whose work indicates that it is more readily adaptable to the juvenile diabetic.

TIME ACTIVITY OF SINGLE LARGE DOSES OF VARIOUS TYPES OF INSULIN IN DIABETES OF MODERATE SEVERITY
(Approximate)

Type of Insulin	Action Demonstrable (hours)	Peak Action (hours)	Intensity of Peak	Duration of Effect
Regular or Crystalline	1	3 to 6	Strong	8 to 12 hrs.
Globin			Fairly	24 hrs.
Zinc	2	8 to 12	Strong	at most 1½ to 2
2:1 Mixture	4	12 to 16	Moderate	days
Protamine Zinc	4 to 8	12 to 32	Weak	3 days or more
NPH	4	12 to 16	Moderate	days

In smaller doses the intensity of the peak is less and the duration of effect is less.

Colwell, A. R.: The Med. Clin. North America, 327, March 1947.

In very severe cases, NPH insulin may be given in a large dose before breakfast and in a small dose before supper. Or NPH insulin may be given in the morning and regular insulin before supper. Of course the possibility of diurnal and of nocturnal shock must always be kept in mind when insulin is increased in this fashion in the attempt to secure normoglycemia.

If regular insulin is added to NPH insulin in the syringe, there being no excess protamine to absorb insulin, the effect will be approximately the same as if the regular and the NPH insulins were given separately. The effect of the insulin will then appear in one to two hours, and the peak activity will be attained in about four hours and will extend for another twelve hours or so, and the waning effect will last twenty-eight to thirty hours.

Other combinations of these insulins will certainly be tried, as the era of new insulins is not over in the continuing search to find the insulin to fit the patient.

Each day the time activity of all the insulin preparations used is disturbed to a greater or lesser degree by many unknown and changing factors. It is affected by:

(1) The variable absorption of food, related to the type of carbohydrate food given and to the ability of the patient to digest and assimilate the food;

(2) Exercise;

(3) Infection;

(4) Trauma;

(5) Hypo and hyperthyroidism;

(6) Poor absorption of insulin injected into too frequently used indurated areas; and

(7) Primarily and almost continuously in a high proportion of cases by the emotional and behavior pattern of the patient. The mechanism of this is almost always unknown to the physician. In fact it is usually hidden from the patient. This behavior pattern really determines whether the patient will be content and will follow his or her diet carefully and live a scheduled life with meals on time, with regular hours for exercise and sleep. Here are some examples:

(A) The adolescent who is very conscious of the restrictions and the hazards of his disease. Every injection is a reminder of it, and many times a day he has waves of rebellion, at times shown by breaking the diet, more often by unconscious increasing inner tensions, or

(B) The woman who is day by day trying to prevent the normal attachment of her son to one of the opposite sex, or

(C) The young college student who is much disturbed by a certain course or has a very persistent dislike of a certain professor, or

(D) The young woman who is forced out of the home by the new step-mother, and who resents the nurse telling her that she should be able to take care of herself better and not come into the hospital so often, or

(E) The very much overweight woman who lives in abject disgust and unconsciously eats her life away though emphatically insisting that the diet is followed exactly as prescribed, or

(F) The man who day by day rebels for the most part unconsciously at the demands of his employer or of his job, or

In short any individual unduly affected daily by the stresses and strains of life.

These people who comprise a large proportion of our diabetic patients are the ones who have been classified as "unstable". Their day

by day control is difficult. In these patients the time activity of the insulin does not follow the seemingly consistent patterns that are expected. This explains the common experience of patients doing poorly at home and of being easily controlled, often with less insulin in the hospital where they are relieved of their burdens and given much needed attention. The degree to which the patient can maintain rigid self discipline without these emotional turmoils probably determines the degree of control of the disease and whether the disease will be kept from increasing in severity.

SUMMARY

The five insulin preparations in use today have been described together with their time activity and their uses. The variable factors that interfere with the time activity of insulin are mentioned.

403 Prospect Street
292 Main Street

DISCUSSION

William C. Giordano, M.D., Ridgefield, N. J.: Dr. Knowles has given us a clear concise impartial description of the various insulins and their timing characteristics that leaves nothing to be added. However I should like to present some purely personal and perhaps slightly prejudiced observations about the various insulins and our experiences with them.

For the sake of simplicity and to avoid a multiplicity of products I respectfully suggest to ourselves and the manufacturers that we cast a critical eye at our "diabetic tools", as Dr. Knowles so aptly describes them, and weed out the outmoded or replaceable ones. At Englewood we have only three insulins in our diabetic tool kit. Considering the practically identical action of regular insulin and crystalline zinc insulin, there is no need to have both these preparations. *We have discarded regular insulin* because it is more often the source of allergic reactions.

As Dr. Knowles has said, the depot insulins have been constantly altered in the search for an insulin that would give good control of the moderately severe and the severe diabetic with one injection a day.

NPH although not the ideal insulin has been the closest to the ideal depot insulin yet devised. We were delighted with it at Englewood Hospital, for heretofore we had relied a great deal upon the "2:1" Crystalline and Protamine Zinc Insulin mixtures for our severe diabetics. We have made the change from "2:1" to NPH with a minimum of disturbance of the previous control and with a much greater sense of assurance that our insulin prescription was being followed.

I am not too kindly disposed towards globin insulin. Several years ago I was turned loose in the diabetic clinic with a generous supply of this product. Results were disastrous. We rarely got a nice smooth curve such as Dr. Knowles has shown us, but we did get insulin shock, not only in the afternoon but in every single hour of the 24 hours and often at different hours in the same patient on succeeding days. When we consider that globin insulin has a pH of 3 and that its depot effect depends upon the formation of an insoluble compound by the alkalinity of the tissues we can readily see how uncertain the depot effect will be and why "dumping" of insulin into the bloodstream can occur at unpredictable times. Needless to say we do not use globin insulin. Everything that globin insulin will do NPH insulin can do better.

In the mild diabetic in which timing is not too important, any insulin will give good results. For that reason we have many patients who will remain on protamine zinc insulin, because they are doing well and there is no point in changing them.

I feel as does Dr. Knowles that NPH insulin will become the depot insulin of choice in our attempt to control severe diabetics with one daily injection.

Dr. Knowles' mention of the psychologic aspect of poor control in these tense individuals deserves particular emphasis. It is everyone's experience that the emotionally tense, immature individuals, make up a good proportion of our poorly controlled diabetics in spite of all manner of insulin administration. Are we dealing with a type of actual metabolic disturbance that releases an epinephrine like substance causing increased glycogenolysis and therefore added hyperglycemia?

NEW JERSEY STATE SOCIETY OF ANESTHESIOLOGISTS

The 1951-1952 officers of the New Jersey State Society of Anesthesiologists are as follows:

President—D'Arcy Clarie, M.D., Leonia

Vice-President—Anthony P. Vernaglia, M.D., Hawthorne

Secretary-Treasurer—Durant K. Charleroy, M.D., Trenton

ACTIVE FIELDS IN GYNECOLOGIC CANCER *

James A. Corscaden, M.D., New York, N. Y.

Of all phases of the cancer problem that of early diagnosis is the most important. The present cure rate[1] of cancers of these organs is roughly 20 per cent. With no addition whatsoever to our knowledge, facilities and skill this could be raised to 70 or even 80 per cent. For instance in cancer of the cervix the cure rate in lesions which are less than a centimeter in diameter is about 80 per cent. This is a lesion which can be diagnosed by the Papanicolaou smear and on examination presents all the manifestations of cervical cancer to those who will look for them.

Seventy-five per cent of gynecologic cancers are neglected. In a study of 200 cancers of the corpus, the patient reported abnormal vaginal bleeding after one year in 30 per cent of the cases; after six months in 50 per cent of the cases and within one month in 10 per cent of the cases. Of the many studies of the degree to which cancer is neglected, that by Howson[2] is most revealing. Fifty-six per cent of women either alone or with the cooperation of the doctor neglected themselves. The physician neglected 27 per cent of the cases seen.

How can patients be persuaded to report symptoms early? The central factor in such a campaign is to give accurate information about cures. All deaths are carefully recorded in vital statistics but the cures are known only to those who conduct systematic follow up clinics. Seventy out of 100 women with Stage I cancer of the cervix can be cured. The 30 who will die of the disease will be known to everyone; the family, friends, nurses, social workers, physicians, priests, morticians and statisticians. The 70 cured cases will be known only to specialists studying the problem. In only one or two states is any record kept. Until women are convinced that their cancers are curable, they will hesitate to report quickly abnormal uterine bleeding and seek an early diagnosis. But this early reporting of abnormal bleeding will help only a certain proportion of the members of the community. For example, 60 per cent of ovarian cancers have reached a diameter of fifteen centimeters or more before they are discovered[3] because they are "silent". In a study of 252 inoperable cancers of the cervix, 5 had no symptoms whatsoever and 69 had symptoms for less than two months. To make an early diagnosis of these two conditions we cannot wait for symptoms. Some plan of periodic, systematic examination of symptomless patients must be created. At present this duty will rest on the shoulders of the patient's personal physician. Cancer detection clinics can serve only a fraction of the population.

The physician neglects to make an early diagnosis because of (1) misinterpretation of the nature of abnormal uterine bleeding, (2) neglect to perform a routine gynecologic examination, and (3) neglect of ignorance of the frequency with which cancer coexists with fibromyomata of the uterus, polyps and erosions. In Howson's study, 112 of 310 neglected women were given pills or hypodermic injections,[2] mostly for bleeding which was supposed to be menopausal. In 154 (or 49 per cent) of these women, *the physician failed to examine the patient gynecologically.*

In our clinic, when supravaginal hysterectomy was the routine treatment for fibroids, it was the operation performed in 10 per cent of the cases of cancer of the corpus.

Cancer of the cervical stump accounts for 5 to 8 per cent of all cervical cancer. Half of these coexisted with the fibroid for which the supravaginal hysterectomy was performed.[4]

The Papanicolaou smear is reliable in 90 or more percent of cases of cancer of the cervix and in 80 per cent of cancers of the corpus. In the hands of the general physician, its reliability is actually higher than that of the biopsy.[5] In the hands of the specialist the reverse is true. A diagnosis of cancer of the cervix has been made by the clinical examination in 85 per cent, by the vaginal smear in 90 per cent and by the biopsy in 95 per cent of the

* Read by invitation before The Medical Society of New Jersey, May 16, 1951.

cases. By using all three technics the diagnosis was made in nearly all of the cases.[6]

The second most important problem is that of cancer of the cervix because of the frequency of this condition and the distressing contrast between the present 5-year cure rate which is about 20 per cent and the rate of 80 per cent which can be obtained with lesions which are smaller than one centimeter in diameter. The four therapies currently employed in the treatment of cancer of the cervix all have an ancient origin. Hysterectomy was first performed in 1878 by Freund. The radical hysterectomy, first carried out by John Clarke in 1895 was thoroughly worked out by Wertheim, was abandoned in the 1930's in favor of radiation but during the past ten years has been revived. External x-ray therapy, first employed in 1896 became thoroughly established in 1913 with the discovery of the Coolidge tube. Transvaginal x-ray was first applied in 1901, abandoned and again brought into use in 1920 by Merritt. Intracavitary radium was first used by Truman Abbe in 1903. The principles underlying its use were established in 1915. Interstitial radium, first proposed in 1903 by Alexander Graham Bell, has been used occasionally since 1915 but has been systematically employed in a large number of cases only in the Providence Clinic.[7]

In evaluating these methods we are interested in the results which might be anticipated from the treatment of a cancer of the cervix administered at the present time. The clinical results and injuries obtained in the old days are of historical interest but should not be used in estimating the mathematical probability of cure in a patient treated today.

The International Classification of the clinical stages of cancer of the cervix is as follows:

Stage O—Carcinoma *in situ*—also known as preinvasive carcinoma, intra-epithelial carcinoma and similar conditions.

Stage I—The carcinoma is strictly confined to the cervix.

Stage II—The carcinoma extends beyond the cervix, but has not reached the pelvic wall. The carcinoma involves the vagina, but not the lower third.

Stage III—The carcinoma has reached the pelvic wall. (On rectal examination no "cancer-free" space is found between the tumor and the pelvic wall). The carcinoma involves the lower third of the vagina.

Stage IV—The carcinoma involves the bladder or the rectum, or both, or has extended beyond the limits previously described.

The curative treatment of cancer of the cervix will be directed toward three stages of the disease.

1. Carcinoma *in situ*—Intra-epithelial carcinoma.
2. Extensive cancer, Stages II, III and IV.
3. Localized invasive cancer, Stage I, International.

Intra-epithelial cancer should be considered a true cancer but one in which there is a long latent period. A woman who does not desire children and who will welcome the menopause should be treated by either a full cancer dose of radium or a complete abdominal hysterectomy, bilateral salpingo-oophorectomy and the removal of a fair sized cuff of the vagina.[8] If the menopause is objectionable but no children are desired, the ovaries may be conserved and the operation carried out as above. A few observations[9] on women with superficial intra-epithelial cancer who have carried on through childbirth have encouraged a conservative attitude toward these lesions. If childbearing is necessary, the risk may be taken.

The diagnosis of cancer *in situ* should not be made casually. During pregnancy especially, there are found changes in the cervical epithelium[10] which have the characteristics of cancer *in situ* but which are reversible[11] and regress spontaneously. However, until the nature of this condition is better known, it should be treated as a localized cancer. We must learn the duration of the latent period and the criteria by which we shall decide that the neoplastic process has become irreversible.

For advanced cancer the treatment is by radiation; in my hands, preferably by the interstitial radium technic combined with external x-ray. The transvaginal x-ray technic also produced fair results. Exenteration with the removal of all of the hollow pelvic viscera is being practiced by a few surgeons. This should be regarded as a study. Attempted with any but extraordinarily complete operative facilities, it will prove fatal in a very high proportion of cases.

Treatment of localized, invasive cancer of the cervix is based upon the (a) proportion

of cases to which a method can be applied, (b) the ease with which it can be carried out, (c) the injuries caused by it, and (d) the clinical results. In order of preference, treatment is: by (1) intracavitary radium, (2) transvaginal x-ray, (3) interstitial radium, and (4) the radical Wertheim hysterectomy.

Intracavitary radium has been employed in about 97 per cent of the cases in clinics where this method is used. A slightly smaller number of cases will be good subjects for the transvaginal x-ray because of constrictions of the vagina. Interstitial radium can be used in nearly all cases of cancer of the cervix even with gross distortions of the vagina. The revived Wertheim operation has been employed in from 10 to 15 per cent of all the cases of cancer diagnosed in the clinics where it has been performed.

The simplest of the methods is intracavitary radium. This does not mean that radium should be applied by anyone who chooses to hire it. He must know the principles of radiation and the nature of the disease which he is treating. Transvaginal x-ray requires special apparatus and considerable finesse in keeping the vaginal cone directed at the proper place in the pelvis. Many radiologists find these difficulties so great that they will not use the method. Interstitial radium requires considerable surgical dexterity, a precise knowledge of the anatomy of the pelvis and a three dimensional sense which will enable the operator to visualize the position of the needles which he has plunged into the tissues. The Wertheim hysterectomy presents difficulties out of all proportion to those of any of the other methods. The equipment necessary must include an unlimited supply of blood and other means of combatting shock and infection. The surgeon must have extraordinary skill and experience. The operation must be extensive. One which does not clear the pelvis from the external iliac vessels on one side to the iliac vessels on the other is incomplete and will be followed by inferior clinical results and had better not be performed.

The injuries cause by radiation up to about 1939 amounted to about 10 per cent of all cases treated. While the number of cases of vesicovaginal fistula, rectovaginal fistula and other types of clinically significant injuries were mostly in women whose cancer persisted, there were still a definite number in women whose cancer was definitely cured. In our experience the intestinal injuries ceased abruptly after a change in technic in 1937.[12] There has not been a single vesicovaginal fistula since 1939 in a woman cured of cancer. There have been some cases of atrophy of the mucosa of the bladder which probably should be considered a desirable condition. The last case which had bleeding from telangiectasis in these ischemic areas was treated in 1940. Transvaginal x-ray causes a lesser number of injuries and of the same variety.

Interstitial radium has caused bladder injuries in 8 per cent of all cases treated.[13]

Injuries from radiation can no longer be regarded as accidents. The cause is overirradiation and this can be avoided by the applications of technics which are well established. One can also figure out the amount of radiation delivered to any point in the bladder or rectum.

The Wertheim hysterectomy, originally carrying a very high mortality now can be safely performed if the extraordinary facilities mentioned above are available. Injuries to the bladder and ureter in any but the most skilled hands runs as high as 25 per cent. In the best hands they are as low as 5 per cent. These reports come from personal conversations. There is very little published about the actual amount of urinary damage caused by the revived radical Wertheim hysterectomy.

The clinical results will be studied from the standpoint of the present rather than the past.

Intracavitary radium has been used in thousands of cases which are reviewed in the annual reports of the committee of the League of Nations.[14] Volume V presents a table which shows that between 1936 and 1943, 1267 cases with Stage I cancer of the cervix had an average cure rate of 62.5 per cent. Of the many clinics reporting, the highest cure rate obtained in any statistically significant group was 88 per cent and the lowest 45 per cent. Of 7675 cases in all stages the average cure rate was 38 per cent. The highest was 53 per cent

and the lowest 26 per cent. In a compilation from 16 individual clinics which have published the results of treatment administered in recent years, we see that in Stage I, there is a spread between a low of 53 per cent and a high of 83 per cent. From this compilation I believe it proper to say that a cure rate under 70 per cent in Stage I would require that the therapist review his technic.

Interstitial radiation in the hands of Waterman in 62 cases Stage I (League of Nations) treated between 1936 and 1940 achieved a 5-year cure rate of 76 per cent. In 166 cases, in all stages the cure rate was 49 per cent.

The two reports of cases treated by the transvaginal x-ray show a 5-year cure in Stage I of 66 per cent and 71 per cent and an over-all cure rate of 44 per cent and 36 per cent.

The results of the revived radical Wertheim hysterectomy have been published in a very small number of cases. Here again there is considerable variation between the highest and the lowest cure rate. How much of this is due to the type of lesion treated and how much to the technic employed will remain unknown until a larger number of cases has been reported.

Summarizing our treatment of cancer of the cervix, it would appear that from the standpoint of applicability, ease of carrying out the procedure, the injuries caused and the clinical results, that intracavitary radium is in general the procedure of choice; that the transvaginal x-ray and interstitial radium are worthy of intensive study; and that the radical Wertheim hysterectomy should also receive concentrated attention in the hands of the experts but should be attempted by no one else. It may be that certain cancers of the cervix are completely resistant to radium but the results of operation in such cases as reported by Heyman[39] have been unsatisfactory, being 29 per cent in cases of local recurrence and 12 per cent in radioresistant cases. Nevertheless the results of the procedure should be established by a sufficient volume of cases. To do this, the procedure must be radical. Injury to the ureter must be risked. If this is carried out without extraordinary skill, experience and facilities, the mortality rate and the incidence of injuries will be high; or on the other hand, if the operation is incompletely performed, the clinical results will be unsatisfactory. Therefore this procedure should remain in the hands of expert studious surgeons.

In the treatment of cancer of the corpus in this country it is generally agreed that hysterectomy should be performed at some time. There is no such unanimity as to whether the discomforts of preliminary radium or x-ray are worth while. As I see the evidence, where radium has been used carelessly or by rote, the improvement in results has been slight. Where it has been used carefully according to a definite plan, it has improved the results as much as 30 per cent. Patients with operable cancer of the corpus have been cured in about 50 per cent of the cases by radium alone (in the hands of Heyman[40, 41] in 67 per cent of the cases), in about 60 per cent of the cases by hysterectomy alone, and in 75 to 85 per cent of the cases by the combined method.

CLASSIFICATION OF OVARIAN TUMORS

(1) Simple dysfunctional cysts, which require no treatment.

(2) Endometriosis, which may be treated conservatively.

(3) Neoplasms, which must be removed.

Ninety-six per cent of masses below five centimeters in diameter are simple dysfunctional cysts. These are to be left alone except in certain cases of sterility. Removal of this type of cyst will rarely relieve symptoms such as pain or abnormal bleeding, and is unnecessary from the standpoint of tumor therapy.

Endometriosis can be treated conservatively. In young women, the conservative treatment has been followed by pregnancy in a satisfactory number of cases.

Any mass appearing in the pelvis after the menopause has become established or any mass which continues to grow after the menopause should be considered an ovarian tumor. Any ovarian mass ten centimeters in size should be explored. The only treatment for an ovarian neoplasm is operation, the extent of the operation being limited by the physical condition of the patient, the necessity to bear children, and the acceptability of the menopause. On the

operating table the extent of the excision is determined by these factors balanced against the menace of the ovarian tumor.

I have presented the most important phases of the cancer problem in women and would reiterate that of them all, the early diagnosis is the most important. If the diagnosis is made early enough, the type of treatment is not of great importance.

Tables and details of the above material will be found in Corscaden's *Gynecologic Cancer*, Nelson, 1951.

A list of 41 footnotes appears in the author's reprints.

180 Fort Washington Avenue

EPIDERMOID CARCINOMA OF THE ANAL CANAL*

J. GERENDASY, M.D., Elizabeth, N. J.

Epidermoid or squamous cell carcinoma of the anus (skin cancer) occurs often enough to warrant a more prominent place in the description of gastro-intestinal tumors. Doctors appear to be unfamiliar with many of the early clinical aspects of this disease. Mistaken diagnoses and erroneous forms of treatment are common. This type of new growth comprises between 2 to 6 per cent[1] of all cancers involving the anus and rectum.[2] It usually occurs in the fifth decade of life with a preponderance in the female.

An anorectal lesion with chronic local irritation is an important contributing factor in the development of epidermoid carcinoma. Reports[1] of this lesion developing in or superimposed on a benign anorectal lesion[3] are frequently recorded in proctologic literature.[4] Fissures, fistula, hemorrhoids, lymphogranulomatous lesions, as well as subaceous glands, cicatrices, moles, psoriatic patches about the anus and skin changes secondary to pruritus ani are among the common lesions from which this type of anal malignancy may develop. The case to be reported occurred in a patient with chronic pruritus ani.

The symptoms most often associated with this disease are: the passage of blood from the anus and pain which may vary from mild anal discomfort or tenesmus to an intense burning pain comparable to that of fissure. This pain is due to irritation of passing fecal material or the cleansing process following the bowel movement. There also occurs a miscellaneous group of complaints such as: itching or irritation around the anus, anal moisture or discharge, frequent desire for and an incompleteness of bowel evacuation, painful swelling and the sensation of heaviness in the pelvis.

Formation of a cicatrix narrowing the anal opening may cause constipation or diarrhea. Early constitutional symptoms are absent. When the disease is well established secondary anemia and weight loss may be present.

There is a wide variation in the gross appearance of epidermoid carcinoma of the anus. It may simulate a fistula, fissure, hemorrhoids, chancre, condyloma or any other anorectal disease. Because of the insidious nature of epidermoid carcinoma of the anus, clinical acumen is essential in the early recognition of this lesion.

In general the growth tends to be one of two types: an *ulcerating* lesion, or a *nodular* growth. The former appears as a chronic indolent ulcer at the anal margin extending out over the perianal skin. It is surrounded by raised indurated edges and has a dirty-white or granulating base which is painful and bleeds easily to touch. It may exude a foul, irritating, seropurulent fluid. The lesion may also appear as a nodular or granulomatous growth in the anal canal which is usually pearly gray in appearance and produces, at a later stage, irregular deformity of the anal skin.

Anatomically, squamous cell carcinoma may

*Read before the New Jersey Proctologic Society, April 10, 1951.

1. Bacon, H. E.: Journal of the Mt. Sinai Hospital, 17:478 (March 1951).
2. Cattell, R. B.: Archives of Surgery, 46:336 (March 1943).
3. Binkley, G. E.: Transactions of the American Proctologic Society, 48:90 (1949).
4. Raiford, T. S.: Surgery, Gynecology and Obstetrics, 57:21 (July 1933).

arise from the anal or perianal skin or the mucocutaneous junction of the rectum. If the former, it is located entirely *externally,* while those arising at the mucocutaneous junction, a more common site of origin,[2] tend to involve the lower part of the rectum as well as extend upward into the anal canal.

The *diagnosis* is made by means of biopsy for histologic examination of any atypical tissue about the anus, and also by routinely submitting tissue removed at the time of any anal operation. This practice is essential if epidermoid cancer of the anus and rectum is to be diagnosed in the early and most favorable stage for treatment.

Differential diagnosis requires the elimination of the following lesions: (1) non-specific fissure or ulcer. These lack the hard cartilaginous base characteristic of the malignant epithelioma and tend to regress under local treatment. (2) A tuberculous cutaneous ulcer is softer and is usually coincident to pulmonary tuberculosis. (3) Certain forms of eczema are not infrequently confused with an early lesion. (4) Epitheliomatous fissures and fistulas, because of their insidious manner of growth are a source of common error in diagnosis. (5) Venereal warts and condylomata are closely similar to some types of epitheliomata but thorough laboratory study should rule these out.

The manner of spread of epidermoid carcinoma of the anus is of great importance since this is the basis of treatment. Locally it may invade the sphincter ani muscle, the perianal or ischiorectal tissues, the recto-vaginal septum, or the prostate gland; or it may extend upward into the rectal wall and rectum.

Metastasis may also occur by way of the lymphatics or blood vessels. The former route is more common and is important in the formulation of any radical plan of treatment.

There is a good deal of controversy as to the best approach for the treatment of epidermoid carcinoma of the anus. A number of authors favor irradiation when the lesion is accessible and metastasis has not occurred. Bacon[1] recommends the following routine: an abdominoperineal type of excision of the anus and rectum with a permanent abdominal colostomy. This is followed by postoperative implantation of gold radium seeds into the obturator and stump of the laevator ani muscles, followed in ten days with radical bilateral inguinal gland resection.

CASE REPORT

A white male, age 65, was seen October 1950, complaining of severe burning pain in the anal region of four weeks' duration. There was also pain and bleeding with each bowel movement. This, with the constant moisture and irritation around the anus, incapacitated him completely. The condition was aggravated by the seepage of mineral oil which he had been taking nightly for several years. These symptoms as a whole were preceded by chronic pruritus ani of several years' duration.

Physical examination was negative except for the anorectal findings. This revealed a severe dermatosis involving an extensive area of perianal skin and adjacent scrotum. There was a complete loss of the normally protective skin pigment. Multiple edematous folds of skin and numerous shallow ulcerations and excoriations were present. The whole mascerated area was bathed in a seropurulent discharge with a foul odor. Palliative treatment was prescribed consisting of the elimination of the mineral oil as a laxative and the local application of calamine lotion. This produced very little local improvement and no relief of symptoms. The patient was then referred to a dermatologist. After several weeks of treatment a complete amelioration of the dermatosis was produced with the exception of the following:

There was a circumscribed superficial anterior anal ulcer, one centimeter by two centimeters in diameter with raised edges and a granulating base. It began at the mucocutaneous junction of the rectum and extended externally onto the anal skin. The ulcer was sensitive to touch and bled easily. Also present was a raised granulomatous pearly-gray mass in the right lateral anal canal, 5 by 10 millimeters in diameter. Surgical eradication and histologic examination of the specimens were recommended.

The patient was admitted to the hospital and each lesion was excised radically including an area of surrounding healthy tissue. The excised specimens were sent to the laboratory for microscopic study. They were reported as epidermoid carcinoma, grade one plus.

There was anal recurrence one month later, confirmed by biopsy. The patient was referred to Dr. William Wuester, of Elizabeth. An abdominoperineal type of excision of the anus and rectum was performed with a permanent abdominal colostomy.

It should be the rule to send biopsy specimens to the pathologic laboratory as a routine after surgery in every case of presumably benign anorectal lesion.

956 East Jersey Street

TREATMENT OF TRICHOMONAS VAGINITIS

USE OF AN IMPROVED VAGINAL CREAM

Joseph T. Cortese, M.D., and Joseph Padovano, M.D.,
Newark, N. J.

The management of Trichomonas vaginalis vaginitis is a vexing medical problem, evidenced by the voluminous literature and the multitude of treatments suggested and recommended by capable clinicians.

Following suggestions published by Cacciarelli,[1] we have used a method which, in a series of 89 patients with Trichomonas vaginalis vaginitis, has resulted in 100 per cent symptomatic cures and 76.4 per cent bacteriologic cures following one course of treatment. In a previously studied group of 14 patients who continued to harbor an occasional Trichomonas vaginalis although symptomatically cured, a second course of treatment resulted in 12 of the patients being symptomatically and bacteriologically cured.

The treatment is not bizarre, nor is it necessary to resort to necromancy to achieve the results reported. The procedure is simple. It is not difficult for the patient, thus giving assurance of patient's cooperation. It is very little trouble to the physician.

PROCEDURE AND MATERIALS

A careful history survey and a thorough knowledge of the diagnostic feature of Trichomonas vaginalis vaginitis are essential in the successful management of this condition.

The classical symptoms and signs described by Drueck[2] are as follows: "A profuse leukorrhea and a distressing pruritus vulvae. The discharge is usually foamy saliva-like, thin and whitish in color, but may be thick, yellow and foul smelling. In the acute stages the vagina appears extremely reddened and at times the vulvae may be involved. The cervix shows varying degrees of cervicitis. In the chronic stage the vulva and vagina may appear entirely normal. The vaginal walls, however, may show the 'flea-bitten' appearance of minute hemorrhages which has been termed the 'strawberry vagina'. Subjectively there is a general, diffuse hyperemia with burning and irritation of the whole upper vagina and cervix; also itching and irritation of the vulva and perineum and chafing of the thighs. The vagina may become quite tender."

We consider a vagina and cervix highly injected with bright or dark red punctate mottling producing the so-called "scarlet fever" or "strawberry vagina" as pathognomonic for Trichomonas vaginalis vaginitis.

The clinical diagnosis is confirmed by bacteriologic studies. Vaginal smears and droplet examinations were made in all cases before treatment, during treatment and in the follow-up studies.

In treatment our first consideration was the re-establishment of a normal vaginal mucosa by the elimination of the Trichomonas vaginalis and associated bacterial infections.

We took up the clinical evaluation of a cream containing allantoin 2 per cent, sulfanilamide 15 per cent, 9-aminoacridine (1-500) in a water miscible base.* This evaluation was interrupted by the sudden death of our colleague Dr. R. A. Cacciarelli,† but we followed up a series of his cases in addition to initiating our own series.

We "inherited" 14 patients from Dr. Cacciarelli's group. They were symptomatically cured, but were found to harbor an occasional Trichomonas vaginalis on bacteriologic follow up studies. These patients were placed on a second course of treatment two months after the final "check-up" to determine whether this group could be bacteriologically as well as symptomatically cured.

In addition to these 14 patients, we treated 91 patients as our own series of cases.

After a careful and detailed history was obtained from the patient, a thorough examination of the external genitalia, vagina and cervix was carried out with as little discomfort to the patient as possible. Specimens were taken for laboratory studies and immediate examination for Trichomonas vaginalis. Fortunately this protozoan has characteristics to distinguish it from other Trichomonas which may infect humans.

* "A.V.C. Improved" supplied by the Medical Research Department, National Drug Company, Philadelphia 44, Penna.
† Died suddenly July 11, 1950.

1. Cacciarelli, R. A.: Journal of The Medical Society of New Jersey, 46:87 (February 1949).
2. Drueck, C. J.: Medical Times, 72:126 (May 1944).

After the diagnosis of Trichomonas vaginalis vaginitis had been established, the external genitalia, vagina and cervix were gently but thoroughly cleaned and dried with cotton pledgets. The patient was then given instruction relative to use of the allantoin, sulfanilamide, 9-aminoacridine cream.* The first application was made by the examiner as a demonstration.

Daily insertions (one applicator full) of the cream* were prescribed, preferably at bedtime, followed by a vinegar douche (an ounce to a quart of warm water) the following morning. This routine was continued for three months even during the menstrual periods. The patient returned at weekly intervals for clinical and bacteriological study. After three months the patient was instructed to discontinue the cream* but to continue with the vinegar douches. Bacteriologic examinations were made once monthly for three consecutive months. Any patient who was symptom free and bacteriologically negative was classified as "cured". Any patient who was symptom free but in whom Trichomonas vaginalis was found in any one of the monthly "check-up" smears was considered as symptomatically cured.

RESULTS

Of the 91 patients of our series, 89 completed the first course of treatment with most gratifying results. All of these patients became symptom free within seven days and remained so throughout the treatment and follow up studies.

Two of the patients were dropped from this series one week after institution of treatment because of sensitivity to sulfonamides, and were placed on another regimen.

We present our clinical results in the table:

	Patients	*Percent*
Patients with positive bacteriologic evidence of Trichomonas vaginalis vaginitis	89	100
Patients with positive bacteriologic evidence of Trichomonas vaginalis vaginitis 3 months after treatment.	21	23.6
Patients with clinical symptoms of Trichomonas vaginalis vaginitis before treatment	89	100
Patients with clinical symptoms of Trichomonas vaginalis vaginitis 3 months after treatment	0	0
Patients completely "cured" after course of therapy	68	76.4

Of the 14 patients carried over from Dr. Cacciarelli's original series and placed on a second course of treatment with allantoin, sulfanilamide, 9-aminoacridine cream,* 12 (or 85.6 per cent) were symptomatically and bacteriologically cured. The remaining two patients continued to show an occasional Trichomonas vaginalis in follow up bacteriologic studies.

COMMENT

Our investigation was stimulated by the report of Parks[3] that allantoin 2 per cent, sulfanilamide 15 per cent, with lactose in a water miscible base was effective in securing rapid relief from vaginal infestations of acute Trichomonas vaginitis and a normal vaginal mucosa was restored in 3 to 10 days.

Angelucci[4] reported good results in 98 per cent of her cases, and permanent cures in 84.6 per cent. She concluded "The method was found therapeutically satisfactory and esthetically acceptable to the patient".

Confirmation of the therapeutic efficacy of the allantoin, sulfanilamide, lactose cream was reported by the Horoschaks[5] who stated "All patients (16 Trichomonas vaginitis vaginalis) became symptom free and bacteriologically negative from 3 days to 4 weeks with an average of 2 weeks after treatment was started".

A powerful bactericidal agent, 9-aminoacridine was added to the formula so that it might be effective against a broader bacterial spectrum and in mycotic vaginitis. This improved cream* consists of allantoin 2 per cent, sulfanilamide 15 per cent, 9-aminoacridine (1-500) in a water miscible base of an acid reaction, and represents the formula we used in our treatment.

In the treatment of Trichomonas vaginalis vaginitis, Cacciarelli[1] obtained symptomatic cures in 97.8 per cent of his cases, and complete cures in 57 per cent. He reported failure in only one case.

Symptomatic and bacteriologic cures were

3. Parks, J.: Medical Annals of the District of Columbia, 12:175 (May 1943).
4. Angelucci, Helen: American Journal of Obstetrics and Gynecology, 50:336 (September 1945).
5. Horoschak, A.: Journal of The Medical Society of New Jersey, 43:42 (March 1946).
6. Hensel, H. A.: Postgraduate Medicine, 8:293 (October 1950).

obtained in all of 39 patients by Hansel,[6] although three patients required a second course of treatment.

The clinical evidence presented in the medical literature plus the data we present here definitely establishes allantoin 2 per cent, sulfanilamide 15 per cent, 9-aminoacridine (1-500) in a water miscible base with an acid reaction as an effective treatment of Trichomonas vaginalis vaginitis.

SUMMARY

1. Allantoin 2 per cent, sulfanilamide 15 per cent and 9-aminoacridine hydrochloride 0.2 per cent in a water miscible base* with an acid reaction was used in a series of 91 female patients with clinical and bacteriologic evidence of Trichomonas vaginalis vaginitis.

2. Of these patients, all were symptomatically cured. Two patients were subsequently dropped from series because of apparent sulfanilamide sensitivity.

3. Bacteriologic and symptomatic cures were found in 68 out of 89 patients or 76.4 per cent.

4. Positive symptomatic cures with nonbacteriologic cures were noted in 21 of the 89 patients, or 23.6 per cent.

5. A second course of treatment in a previously studied group of 14 patients resulted in complete cures in 12 or 86.5 per cent of the patients.

6. Based on our clinical experiences with allantoin 2 per cent, sulfanilamide 15 per cent, 9-aminoacridine 0.2 per cent in a water miscible base* with an acid reaction, and on the reports found in the literature, we are agreed that it represents the most effective treatment for Trichomonas vaginalis vaginitis available to us.

517 Roseville Avenue

INDUSTRIAL MEDICINE IN CIVILIAN DEFENSE

Announcement has been made by Dr. John L. Olpp of Tenafly, New Jersey, Area 1 Medical Director of the New Jersey Civil Defense organization, of the appointment of an industrial medical section believed to be the first setup of its kind in the state.

The medical staff including the industrial medical section, which is already an active functioning organization, consists of:

John L. Olpp, M.D., Area Medical Director, Tenafly, New Jersey.

Wayne Hall, M.D., Area Chief of Medical and Nursing Services, Paterson, New Jersey.

George Heller, M.D., Area Chief First Aid and Hospitalization Services, Englewood, New Jersey.

G. Albin Liva, M.D., Deputy Area Chief, Wyckoff, New Jersey.

Samuel C. Yachnin, M.D., Deputy Area Chief, Passaic, New Jersey.

Miss Viola DeMartin, R.N., Assistant Area Chief, Englewood, New Jersey

Miss Charlotte Decker, R.N., Deputy Assistant Area Chief, Hackensack, New Jersey.

Fred Hoyt, Area 1 Coordinator Rescue Service and Ambulance Corps, Bergenfield, New Jersey.

Robert E. Wright, M.D., Area Chief of Industrial Medical Services, Paterson, New Jersey.

Miss Marion Dowling, R.N., Assistant Chief of Industrial Nursing, Englewood, New Jersey.

Mrs. Bridget Mouttet, R.N., Assistant Chief of Industrial Nursing, Paterson, New Jersey.

Ray H. Kelley, M.D., Deputy Area Chief of Industrial Services, Pompton Lakes, New Jersey.

L. Mason Lyons, M.D., Deputy Area Chief of Industrial Services, Wood-Ridge, New Jersey.

RESEARCH FELLOWSHIPS IN RHEUMATOLOGY

Fellowships at $3000 to $6000 per year are offered by the Arthritis and Rheumatism Foundation for research in basic sciences related to arthritis. Applications must be filed by November 15, 1951. For more details, write to Arthritis and Rheumatism Foundation at 535 Fifth Avenue, New York 17, New York.

STATE ACTIVITIES

PRESIDENT'S POLICY PROGRAM FOR 1951 - 1952

Approval was given by the Board of Trustees at its regular meeting at Haddon Hall, Atlantic City, May 13, 1951, to the President's Policy Program for 1951-1952, submitted by Dr. Johnsen. It consists of six divisions: Medical Practice, Medical Education, Legislative Problems, Public Health, Public Relations and Society Organization.

In the field of *Medical Practice* the Program embodies the following objectives:

(1) To continue the program to strengthen the system of the private practice of medicine by planning to exclude all medical services from hospital service contracts, and to include all such services in the medical-surgical contracts.
Also to study the possibility of setting up coverage of medical care for indigents through the Medical Service Administration.

(2) To expand the operations of emergency and night calls system to cover the entire state.

(3) To study specific measures to combat hospital usurpation of medical services, and all unjust competition by hospitals, and to plan for specific steps to restore the prestige and safeguard the welfare of physicians in hospitals.

(4) To study measures to correct defects in compensation practices and to improve medical services therein.

(5) To study the operation and general administration of the Medical Disabilities Law and to correct any abuses found.

(6) To establish standards for group practice and secure cooperation with all other branches of medical practice.

(7) To make specific recommendations for re-establishing the practice of pathology and laboratory medicine as a field of private practice.

(8) To make recommendations regarding the need for increase in nurses and to consider the advisability of further expansion of nursing services.

(9) To conduct a survey to determine the actual costs of office, home, and hospital charges to patients, as well as the cost of night and emergency calls.

(10) To encourage Health Maintenance Centers in doctors' offices throughout the state.

All the objectives of the Program in the field of Medical Practice are referred to the Subcommittee on Medical Practice of The Medical Society of New Jersey, to which Dr. Royal A. Schaaf is appointed as Trustee adviser.

In the field of *Medical Education* the Program embodies the following objectives:

(1) To cooperate with the Committee on Medical Education in its new program of education set up at Rutgers.

(2) To review and expand postgraduate medical courses throughout the state.

(3) To study the request of the American Medical Association for cooperation with the American Medical Education Foundation.

(4) To cooperate with the Commission for the establishment of a medical school in New Jersey.

(5) To appoint a special committee of The Medical Society of New Jersey to further the project for the establishment of a medical school in New Jersey.

All the objectives of the Program in the field of Medical Education, with the exception of those appertaining to the establishment of a medical school, are referred to the Committee on Medical Education, to which Dr. Henry B. Decker is appointed as Trustee adviser. Dr. Decker will also serve as Trustee adviser to the Special Committee on the New Jersey Medical School.

In the field of *Legislative Problems* the Program embodies the following objectives:

(1) To study carefully all welfare plans such as those contained in the Public Assistance Code of 1951, and to make recommendations as to the type of bill we can support.

(2) To seek to formulate a policy for the enforcement of the Medical Practice Act by annual registration and other means.

(3) To study the relationships and policies to be adopted to enable us to cooperate in some practical way with the osteopaths, chiropractors, chiropodists, optometrists, and other groups.

(4) To study means of combating narcotic addiction in youths.

(5) To study methods to combat misuse of barbiturates.

All the objectives of the Program in the field of Legislative Problems are referred to the Subcommittee on Legislation, to which Dr. Aldrich C. Crowe is appointed as Trustee adviser.

In the field of *Public Health* the Program embodies the following objectives:

(1) To reevaluate our relations with the public health organizations and to make specific recommendations for a greater degree of control and responsibility in the programs of these organizations.
(2) To study and reevaluate the policies of the Medical Society in relation to various affiliated organizations.
(3) To evolve principles actively to promote Medical Society policies in all organizations with which we maintain representatives.
(4) To make a survey of our cooperative agencies and to study their budgets and disbursal figures to determine what use is made of the monies which they collect.
(5) To study ways and means of more active cooperation with the new structure of public health when established.

All the objectives of the Program in the field of Public Health are referred to the Subcommittee on Public Health, to which Dr. Harrold A. Murray is appointed as Trustee adviser.

In the field of *Public Relations* the program embodies the following objectives:

(1) To publicize and bring to each county medical society all available information concerning the Judicial Council, and to assist in the establishment and operation of its new program.
(2) To correlate the activities and policies of all the counties for the purposes of publicity so that the general membership may be informed of all matters dealt with by the various committees.
(3) To plan future policy and setup of the Public Relations Committee, and to reevaluate the current program to arrive at objectives and programs for the coming year.

All the objectives of the Program in the field of Public Relations are referred to the Subcommittee on Public Relations, to which Dr. David B. Allman is appointed as Trustee adviser.

In the sphere of *Society Organization* the Program seeks by the following means to reevaluate the organization and functions of the State Society in its offices and various departments.

(1) It will seek a closer coordination and supervision of all activities of the State Society, in accordance with which objective the Executive Committee will prepare and present to the Welfare Committee and the Subcommittees matters for discussion and decision; the Welfare Committee will report through its Chairman to the Executive Committee; the Executive Committee will submit recommendations to the Board of Trustees for approval or disapproval. All actions taken by the Board of Trustees will become the responsibility of the Executive Officer for effectuation.
(2) Consideration will also be given to the adequacy of other units of Society activity, including THE JOURNAL and the various committees of the Society. An attempt wil be make to weigh the worth of various committees, so that inactive committees may be dropped and new and necessary committees may be created.

TRUSTEES' MEETING

JUNE 10, 1951

The first regular meeting of the Board of Trustees for 1951-52 was held at the Traymore Hotel, Atlantic City, June 10, 1951.

In accordance with the amendment to the By-Laws adopted at the 1951 Annual Meeting, Dr. Johnsen moved that the Board authorize the appointment of an Executive Committee and approve the Chairman's appointment of Dr. Schaaf as Trustee member. The motion was seconded by Dr. Murray and unanimously carried.

In consequence of the approval by the Board of Trustees of the report of the Executive Committee, the following actions were taken:

(1) Dr. Johnsen reported that Dr. Bergsma, appearing before the Executive Committee, had asked the Society to designate men for new offices in the State Civil Defense Program. Accordingly, the following names were presented: Dr. David B. Allman, State Chief of Medical Services; Dr. Stuart Z. Hawkes, Dr. Stewart F. Alexander, State Deputy-Chiefs of Medical Services; Dr. Leonard S. Ellenbogen, Dr. Daniel F. Featherston, and Dr. Baxter H. Timberlake, State Deputy-Chiefs of Rad-Chem and First Aid Services. These names were approved, and the Secretary was instructed to submit the recommendations to Dr. Bergsma.

(2) It was agreed that all publicity releases by The Medical Society of New Jersey, except those made by the President or Chairman of the Board, and authorized releases made by the Executive Officer, should be made by the Public Relations Committee directly or in consultation with the committee concerned.

(3) It was also agreed that The Medical Society of New Jersey should be a co-sponsor of the Institute on Civilian Morale and Mental Hygiene, to be held on June 21, 1951, and

that Dr. Murray represent the Society at the Institute.

(4) The appointment of the following representatives of the Society to the Joint Committee for the Improvement of the Care of the Patient was approved by the Board for the terms indicated:

Dr. Florentine M. Hoffman—3 year term
Dr. Norman W. Burritt—3 year term
Dr. J. Lawrence Evans—2 year term
Dr. John L. Olpp—2 year term
Dr. Asher Yaguda—1 year term
Dr. Elmer J. Elias—1 year term

(5) The Special Committee on Civil Medical Defense of The Medical Society of New Jersey is discontinued in view of Dr. Bergsma's report to the Executive Committee that there is no further need for a civil medical defense committee.

(6) Dr. Frederick G. Dilger of Hackensack was recommended for reappointment to the Crippled Children Commission for a term of five years.

(7) Three representatives of the Medical Society were appointed to serve on a Medical-Dental Liaison Committee: Dr. Reuben Sharp, Chairman, Dr. Adolph Wegrocki and Dr. Joseph Londrigan.

Upon motion by Dr. Sica, seconded by Dr. Evans and unanimously carried, the salaried personnel was reemployed at the figure provided in the 1951-52 budget.

The request of Dr. Lloyd Yepsen of the State Department of Institutions and Agencies for the name of a representative from The Medical Society of New Jersey to the Commission to Study the Problems and Needs of Mentally Deficient Persons was referred by the Board to the President for his study, with power to act. Dr. Johnsen subsequently appointed Dr. Lewis H. Loeser of Essex County as this Society's representative.

SUPPLEMENTARY LIST No. 3
TO THE OFFICIAL LIST OF MEMBERS AS OF MARCH 1, 1951

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Abrams, Benjamin P., 803 Garden st., Hoboken (9)
Anderson, Merton B., 727 Walnut st., Camden (4)
Aronoff, Solomon, 70 Columbia ter., Weehawken (9)
Blanchard, Charles L., 28 E. Blackwell st.,Dover(14)
Blecher, Irving E., Vet. Administration, Lyons(18)
Booth, Robert E., 919 Washington av., Haddonf'd(8)
Borino, John W., Jr., 605 Broad st., Newark (7)
Bosch, Donald T., 290 E. Franklin Tpk., Hohokus(7)
Browne, George F., 126 Lorraine av.,Up.Montclair(7)
Brown, Edward V., 9 Park av., Caldwell (7)
Cannon, Edward, 1570 Center av., Fort Lee (9)
Clark, John J., 517 Broadway, Long Branch (13)
Cone, Thomas E.,Jr.,108 N.Stanw'th dr.,Princet'n(11)
Dallam, Lloyd A., 1115 E. Grand st., Elizabeth (20)
Davis, John Stannard, 55 Kings Hwy.,E.,Had'nf'd(4)
DePietro, Vincent P., 64 Clifton ter., Weehawken(9)
Dieffenbach, Richard H.,570 Mt.Prosp't av.,New'k(7)
Estrin, Seymour S., 900 Main st., Bradley Beach(13)
Goldmann, Joseph, 103 N. Walnut st., E. Orange (7)
Green, George G., 601 Grand av., Asbury Park (13)
Greenberg, Samuel, 46 Johnson av., Newark (7)
Greenberg, William B., 315 60th st., W. New York(9)
Halpern, Sophia L., 1311 Palisade av., Union City(9)
Hauber, Eugene A., 198 Wash'gton rd.,Sayrev'le(12)
Henshaw, George R., 228 Midland av., Montclair (7)
Hirsch, Solomon, 2553 Boulevard, Jersey City (9)
Jensen, Grover H., 130 Jewett av., Jersey City (9)
Kearney, Paul A., 85 Woodland rd., Short Hills (7)
Lehman, Irving J., 31 Lincoln Pk., Newark (7)
Levy, Bernard, 181 Claremont av., Verona (7)
Licks, Frederick C., 64 Scotland rd., S. Orange (7)
Manette, Milton, 535 41st st., Union City (9)
Mangone, Edith, 74 Bentley av., Jersey City (9)
Marks, Zelda I., 202 Clinton av., Newark (7)
Marrella, Louis F., 339 Pacific av., Jersey City (9)
McCroskery, James H.,471 N.Arl'gt'n av.,E.Orange(7)
Moench, George F., 172 W. State st., Trenton (11)
Newcomer, H. Sidney,1048 Washington st.,C. May(5)
Perlmutter, Irving K., 88 Clinton av., Newark (7)
Picardi, Armand A., 1002 18th av., Newark (7)
Plain, Irving H., 88 Clinton av., Newark (7)
Plum, Stephen H., 155 A Fort Lee rd., Leonia (14)
Riggins, Edwin N., 161 N. Arlington av.,E.Orange(7)
Rosenthal, Sydney, 202 Clinton av., Newark (7)
Rubin, Harold, 601 Grand av., Asbury Park (13)
Samuel, Jerome H., 61 Lincoln Park, Newark (7)
Schorr, Herman E., 26 Lincoln Pkwy., Bayonne (9)
Schwab, George P., 7914 Boulevard, N. Bergen (9)
Sheehan, George A., Jr., 27 Irving pl.,R. Bank (13)
Troast, Leonard, 2801 Boulevard, Jersey City (9)
Witman, H. John, Jr., 526 N. Clinton av.,Trenton(11)

ASSOCIATES

Anthony, David W., 50 Throop av.,N. Brunswick(12)
Benson, Wilbur M.,Hoffm'n-La Roche, Inc.,Nutley(7)
Collinson, Daniel J., 31 Oakland st., Red Bank (13)
Matflerd, Rudolph G., 156 Home st.,N. Brunsw'k(12)
Miller, David B., Stanworth Apts., Princeton (11)
Shipper, Harvey, 949 Berkeley av., Trenton (11)

GRADUATE WEEK IN NEW JERSEY

The week of October 29, 1952, has been designated by the Academy of Medicine of Northern New Jersey as Graduate Week. The program includes panel discussions, case presentations, clinics, scientific papers, and evening lectures. Most of the hospitals of northern New Jersey are participating.

The Academy of Medicine urges all hospitals of northern New Jersey to postpone conferences and meetings scheduled for the week of October 29, in order to permit all physicians an opportunity to attend the all-day sessions. For the same reason the Seton Hall University-Essex County Medical Society courses have been cancelled for that week.

For a detailed program write to the Academy of Medicine at 91 Lincoln Park, Newark 5.

GRADUATE COURSES AT MT. SINAI

Fifty-five part-time and ten full-time postgraduate courses in widely different branches of medicine will be given by The Mount Sinai Hospital, New York City, in affiliation with the College of Physicians and Surgeons of Columbia University. The courses, which begin on September 11, will be taught by members of The Mount Sinai Hospital attending staff as part of the program of graduate medical education of Columbia University. Courses include operative demonstrations, ward rounds, lectures and clinical conferences.

For further information address the Registrar for Medical Instruction, The Mount Sinai Hospital, Fifth Avenue and 100th Street, New York 29, New York.

OBITUARIES

DR. B. S. BOOKSTAVER

Dr. Barnet Seymour Bookstaver died suddenly of a heart attack on June 26, 1951, while acting in his capacity of police surgeon at the scene of a fire in Teaneck. Born in Russia in 1888, he was graduated from University and Bellevue Hospital Medical College in 1908. He practiced obstetrics and gynecology in New York City until he moved to Teaneck 20 years ago. He gave up private practice and had served as Health Director, Chief School Physician, Fire and Police Surgeon of Teaneck. He was a member of the Bergen County Medical Society and the Public Health Officers Association of New Jersey. He was also a staff member of Holy Name and Lebanon Hospitals.

DR. MALVIN FINKELSTEIN

Dr. Malvin Finkelstein of Jersey City, died on June 20, 1951, of a heart attack, at the age of 33.

Dr. Finkelstein received his medical degree in 1942 at the University of California. He was a member of the staffs of Babies' Hospital, Newark, the Fairmount and Greenville Hospitals and Medical Center in Jersey City, and served at Jersey City's "Door of Hope".

He was a Fellow of the American Academy of Pediatrics and a veteran of World War II.

DR. CORNELIUS VANDER CLOCK

Dr. Cornelius Vander Clock, president emeritus of the medical staff of Passaic General Hospital, died of a heart attack on July 10, 1951.

Dr. Vander Clock was born in 1877. He was graduated from the College of Physicians and Surgeons of Columbia University in 1900. He had retired recently after fifty-one years of surgical practice in Passaic. He was an emeritus member of the Passaic County Medical Society and The Medical Society of New Jersey.

DR. MICHAEL B. WEINSTOCK

Dr. Michael B. Weinstock of Newark, died on June 28, 1951, after a long illness.

Dr. Weinstock, who was born in Newark in 1895, received his medical degree at the New York University School of Medicine in 1917. He served in both World Wars. He was a Fellow of the American College of Surgeons and a member of the staffs of City Hospital and American Legion Memorial Hospital in Newark.

THE MEDICAL SOCIETY OF NEW JERSEY

THE CHARTER OF 1864

NOTE: The Medical Society of New Jersey was founded July 23, 1766. County societies were first chartered in 1816. In 1825 the state delegated to the Society the authority to confer the M.D. degree. The Society became an original constituent of the American Medical Association when the latter body was created in 1847. Since The Medical Society of New Jersey was older than the state government, its charter did not originally derive from the state. Accordingly, the Senate and General Assembly of the State of New Jersey enacted Chapter 157 of the Laws of 1864, chartering The Medical Society of New Jersey. The full text of the enabling act and charter follows:

CHAPTER CLVII

AN ACT TO REORGANIZE THE MEDICAL SOCIETY OF NEW JERSEY

WHEREAS, The Medical Society of New Jersey is approaching its centenary anniversary; and, whereas, the society, by petition, has expressed a desire to surrender all its special privileges and pecuniary immunities, and to reorganize, as nearly as possible, upon the voluntary basis; therefore,

1. BE IT ENACTED, *by the Senate and General Assembly of the State of New Jersey,* That the Medical Society of the State of New Jersey, already incorporated by the style and name of "The Medical Society of New Jersey", shall continue to be a body corporate and politic, in fact and in name, and shall and may have and use a common seal, and alter the same at their pleasure; and that the said society shall be composed of delegates (not less than three), chosen by and from each of the district or county societies, which now are, or which under the authority of the said society may be hereinafter instituted; the officers for the time being, shall be ex-officio members of the said society, independently of the authority of delegation; and all persons who shall have been, or may hereafter be, presidents of the society, shall rank as Fellows, and be entitled to all the privileges of delegated members.

2. *And Be It Enacted,* That the society shall have the authority to confer the degree of Doctor of Medicine, under such rules and regulations as they may adopt, which degree shall be deemed sufficient evidence of a regularly educated and qualified practitioner of the healing art; and hereafter no one shall be admitted to membership in any district or county society having connection with this society, unless he shall have received the said degree of Doctor of Medicine, or been admitted *ad eundum,* from some other medical authorities, which this society shall deem proper to recognize; *provided,* that this act shall not be so construed as to prevent any county or district society from admitting to membership any respectable practitioner who shall have previously to the passage of this act, received the degree of doctor of medicine from any college or university recognized by, or in affiliation with the body known as "The American Medical Association".

3. *And Be It Enacted,* That this society shall have the power to prescribe the duties of its officers and members, fix their compensation, assess from time to time an annuity upon the district or county societies in the ratio of their membership respectively, and adopt such rules and regulations for the due management of the concerns of this and the several district societies as may be deemed necessary; *provided,* the same be not contrary to the laws of this state; and may hold any estate, real and personal, the annual income of which shall not exceed one thousand dollars.

4. *And Be It Enacted,* That this act shall be considered a public act, and shall take effect on the fourth Tuesday of January, eighteen hundred and sixty-six; and that the act entitled "An act to incorporate medical societies for the purpose of regulating the practice of physic and surgery in this State", passed January twenty-eighth, eighteen hundred and thirty, and all supplements thereto, be and the same are hereby repealed.

Approved March 14, 1864.

CONSTITUTION AND BY-LAWS

As amended up to the close of the Annual Meeting
May 16, 1951

Constitution

ARTICLE I—NAME

The name of this organization is "The Medical Society of New Jersey".

ARTICLE II—PURPOSE

The purposes of this society are:

To federate and organize the medical profession of the State of New Jersey;

To unite with similar organizations of other states to compose the American Medical Association;

To advance medical science, elevate professional standards, safe-guard the material interest of and promote friendly relations among members of the medical profession;

To educate the public in prevention of disease and the preservation of health; and, in general,

To render this profession most capable of serving humanity.

ARTICLE III—COMPONENT SOCIETIES

County medical societies that hold charters from this society shall be known, and referred to in the Constitution and By-Laws, as *component societies.*

ARTICLE IV—COMPOSITION OF THE SOCIETY

SECTION 1—OF WHOM COMPOSED

This society shall be composed of Fellows, Officers, Delegates, and members of Component Societies in good standing.

SECTION 2—GROUPS

(a) Fellows. The Fellows are the Ex-Presidents of the society.

(b) Officers. The Officers shall be a President, a President-Elect, two Vice-Presidents, a Secretary, a Treasurer, members of the Board of Trustees, and the Councilors.

(c) Delegates. Delegates shall be chosen by and from the component societies, and shall be members of this society and of the House of Delegates for the period of time for which they are elected, subject to continuance of good standing in their respective component society, and further subject to their respective component society continuing in good standing in this society.

SECTION 3—ELECTION OF DELEGATES

(a) Apportionment. Each component society shall be entitled to one (1) delegate for each fifteen (15) members or major fraction thereof, to be elected at its annual meeting by a majority ballot of the members present; but, each component society shall be entitled to at least three (3) delegates. Each component society shall, at its annual meeting next following the adoption of this Constitution, elect delegates in 3 groups, for periods of 1, 2, and 3 years, respectively; and thereafter shall elect its delegates for periods of 3 years each.

(b) Reapportionment. In the event of subdivision of any of the existing counties of New Jersey and the creation of an additional component society, the delegates from the old and the new component societies shall be apportioned on the basis above provided, and the quota of the original component society of that district shall be correspondingly diminished.

(c) Delinquency. In the event that a component society becomes delinquent to this society, its entire delegation shall lose its status throughout the period of such delinquency.

(d) Vacancies. A vacancy shall exist in the delegation of any component society whenever one of its delegates ceases to be in good standing, or fails to attend two consecutive meetings (annual or special) except in case of illness, or resigns, or dies. When such a vacancy occurs in any component society, its secretary shall promptly so notify the Secretary of this society, in writing; and, after acknowledgment of receipt of such notice, the component society shall, at a regular or special meeting, fill the unexpired term of such vacancy by election of a new delegate, by a majority ballot of the members present.

(e) Alternates. Each component society shall elect, at its annual meeting, an alternate delegate for each regular delegate, and the latter, if unable to attend the annual meeting (or any regularly called meeting) of this society, shall assign his delegate's card to an alternate. An alternate, when serving, shall have all the rights and privileges of a regular delegate; and, when registered and seated in the House of Delegates, shall retain his seat during that entire meeting.

SECTION 4—MEMBERS OF COMPONENT SOCIETIES

All members of component societies in good standing are hereby constituted members of this society and entitled to participate in all the privileges of general and scientific sessions.

SECTION 5—HONORARY MEMBERS

Honorary members shall be physicians and surgeons who have attained distinction within the medical profession, or nonmedical persons who have rendered signal service to The Medical Society of New Jersey or who have attained special eminence in scientific fields other than medicine, and who may be elected by a two-thirds vote of the House of Delegates after having been recommended by the Committee on Honorary Membership; provided the number of living Honorary Members does not exceed fifteen (15). They shall have all the privileges of members, but shall not be members of the corporate body.

SECTION 6—GUESTS

Any physician, resident or non-resident of New Jersey, may, upon invitation of this society or its House of Delegates, become a Guest during the annual meeting, and shall thereby be accorded the full privileges of the scientific sessions.

SECTION 7—EMERITUS MEMBERSHIP

The emeritus membership group shall include physicians who have been members in good standing of a component county society for at least twenty (20) years, and who by reason of age or infirmity have retired from the active practice of medicine, or members of the society who have been disabled by reason of military service. They shall have all the privileges of membership except the right to vote and hold office, but their respective component societies shall not be assessed for such members provided they are carried as emeritus members in their component societies. The emeritus members shall not be included in the membership of a component county society when computing the number of delegates that such society is entitled to.

ARTICLE V—HOUSE OF DELEGATES

The House of Delegates shall be the *legislative* body, and shall consist of the Fellows, Officers and Delegates.

ARTICLE VI—BOARD OF TRUSTEES

The Board of Trustees shall be the *executive* body, and shall be composed of the Immediate Past-President, President, President-Elect, two (2) Vice-Presidents, Secretary, and Treasurer (by virtue of their offices), and eleven (11) members—at least two (2) from each judicial district—who shall be elected as follows:

At the first election of officers following the adoption of this Constitution, three (3) members shall be elected for a period of one (1) year; four (4) members for a period of two (2) years; four (4) members for a period of three (3) years; and, as the terms of these elected Trustees expire, new elections shall be for periods of three (3) years each.

ARTICLE VII—COUNCILORS

The Councilors collectively shall comprise the Judicial Council which shall be the *judicial* body of the society. The House of Delegates shall organize five (5) councilor districts within the state. It shall elect one (1) councilor to represent each district from among the membership of each such district.

ARTICLE VIII—MEETINGS

SECTION 1—GENERAL SESSION

This society shall hold an annual meeting, during which there shall be at least one general session that shall be open to all registered members.

SECTION 2—SECTIONS

The House of Delegates or the Board of Trustees may provide for division of the scientific work of the society into appropriate sections whenever necessity therefor arises.

SECTION 3—TIME AND PLACE OF ANNUAL MEETING

The time and place for said annual meeting shall be fixed by the House of Delegates for each succeeding year. The Board of Trustees may change the time and place when necessary.

ARTICLE IX—OFFICERS

SECTION 1—TERM OF OFFICE

The Officers, except the Councilors and members of the Board of Trustees, shall hold office for one year, or until their successors are elected and installed.

SECTION 2—ELECTION

The Officers shall be elected by the House of Delegates, by ballot on the second day of the annual meeting. No member shall be eligible to more than one office at the same time, except

the President, President-Elect and two (2) Vice-Presidents, Secretary and Treasurer, who by virtue of such offices are at the same time members of the Board of Trustees. A vacancy in office occurring between annual meetings may be filled *ad interim* by the Board of Trustees.

ARTICLE X—FUNDS AND EXPENSES

SECTION 1—FINANCES

Current expenses of this society shall be met by an annual *per capita* assessment upon the members of each component society; by donation; by sale of the society publications; and from miscellaneous revenue. During the annual meeting, funds may be appropriated by the House of Delegates for the expenses of the annual meeting, for publications, for expenses of officers and committees, but for no other purpose, unless authorized by a two-thirds vote of the members of the House of Delegates then present, and approved by the Board of Trustees.

SECTION 2—INCURRING EXPENSE

The Board of Trustees may incur any necessary expense *ad interim*.

ARTICLE XI—SEAL

The seal heretofore adopted and now in use shall continue, unless otherwise ordered, to be the Seal of The Medical Society of New Jersey.

Seal of The Medical Society of New Jersey

ARTICLE XII—AMENDMENTS

This Constitution may be amended by a two-thirds vote of the members present at any annual meeting, provided the proposed amendments have been considered by the Committee on Revision of Constitution and By-Laws, and that they shall have been submitted in writing at a previous annual meeting, shall have been published in the JOURNAL of this society, and officially sent to each component society at least three (3) months before the annual meeting at which final action is to be taken.

By-Laws

CHAPTER I—MEMBERSHIP

SECTION 1—PERSONNEL

The Fellows and Officers of and all the elected delegates to The Medical Society of New Jersey and the members of component societies in good standing are members of this society. Honorary members are entitled to the rights given them by the Constitution.

SECTION 2—OFFICIAL LIST OF MEMBERS

(a) March 1 in each year is the final date for closing the official list of members. Five days before this date the treasurer of each component society shall forward to the Treasurer of this society a complete list in duplicate of all paid-up members in good standing, with their correct addresses, at the same time remitting the assessment covering such membership. The Trustees shall arrange for the compiling and publication of the Official List from the lists so received by the Treasurer.

(b) On the first day of March in each year, the secretary of each component society shall send to the Secretary of this society the following information: names of the officers, reporter and censors, member of the nominating committee, delegates and alternates to this society, complete list of associate members, members elected, deceased, and those who have resigned or moved from the county during the preceding year. Where members have transferred or have been received on transfer, the name of the county or state society to or from which they have transferred must be given.

(c) Upon request of the Secretary, the secretary of each component society shall furnish complete lists of the names of all affiliated and non-affiliated physicians resident in the county.

(d) The Official List as published each year shall be *prima facie* evidence of the right of members to register at the annual meeting, and, unless otherwise ordered by the House of Delegates, shall form the basis of representation of each component society; except that after the Official List is printed, any component society which finds that it is entitled to additional delegates and alternates may elect these at its April or May meetings.

SECTION 3—INELIGIBILITY

No person who is under sentence of suspension or expulsion from any component society, or whose name has been dropped from its

roster shall be entitled to any of the rights or privileges of this society, nor shall he be permitted to take any part in any of its proceedings, until relieved of such disability.

SECTION 4—REGISTRATION AT ANNUAL MEETING

All members and delegates in attendance at the annual meeting of this society shall write their names and addresses on an official registration card which shall be duly presented at the registration desk; failing to do so, they shall be considered as absent.

SECTION 5—CREDENTIALS

(a) All delegates shall present to the Committee on Credentials a certificate, bearing the seal of this society and the signature of its Secretary. No delegate will be permitted to register or sit as a member of the House of Delegates without such certificate, nor if the component society of which he is a delegate has not paid its annual assessment.

(b) The annual assessment of a component society shall be the dues of at least the smallest number to whom a charter may be granted to form a component society, in accordance with Chapter X, Section 2, of these By-Laws.

SECTION 6—BADGE

When a member's right to membership has been verified by the Committee on Credentials, he shall receive a certificate or badge which will be evidence of his right to the privileges of membership. No member or delegate shall be permitted to take part in the proceedings of this society until the provisions of this chapter have been fulfilled.

CHAPTER II—MEETINGS

SECTION 1—ANNUAL MEETING

This society shall hold an annual meeting at such time and place as may be fixed by the House of Delegates or by the Board of Trustees.

SECTION 2—SPECIAL MEETINGS

Special meetings of this society or of the House of Delegates shall be called by the President upon the petition of twenty or more members representing four or more component societies, or upon request of the Board of Trustees.

CHAPTER III—CONDUCTING THE SESSIONS

SECTION 1

All registered members may attend and participate in the proceedings and discussions of the general and section meetings. The general meetings shall be for the presentation of the addresses of the President and President-Elect, orations by invited guests, and scientific papers and discussions as provided for in the official program; these meetings shall be presided over by the President, President-Elect or one of the Vice-Presidents. Special section meetings shall be for the presentation of scientific papers and discussions related to the medical or surgical specialty designated and as provided for in the program; these section meetings shall be under the guidance of a presiding officer chosen by each section at its last session of the preceding annual meeting.

SECTION 2—COMMITTEES

The general and section meetings may create committees for scientific investigations of special interest or importance to the profession or public, and may receive and dispose of such committee reports; but no expense shall be incurred in connection therewith until authorized by the House of Delegates and approved by the Board of Trustees.

SECTION 3—PROGRAMS

The order of exercises, papers and discussions, as set forth in the official program, shall be followed from day to day until completed; unless otherwise ordered by the society.

SECTION 4—LENGTH OF ADDRESSES

No address or paper, with the exception of those delivered by the President, President-Elect, and invited orators, shall occupy more than twenty minutes in its delivery or reading; and no member shall speak longer than five minutes, nor more than once, on any subject, unless by permission of the society.

SECTION 5—OWNERSHIP OF PAPERS

All papers and reports presented to the society shall become its property, and when read shall be deposited with the Secretary. Permission to publish such papers in the Journal of the society or in other medical journals may be granted by the Committee on Publication.

CHAPTER IV—HOUSE OF DELEGATES

SECTION 1—MEETINGS

The House of Delegates shall meet on the first day of the annual meeting of the society, but may meet in advance of or after adjournment of the annual meeting. Sessions may be adjourned from time to time, as may be necessary, but shall be so arranged as not to conflict with the general meetings of the society.

SECTION 2—QUORUM

Twenty members, representing at least four component societies in good standing, shall constitute a quorum. Sessions of the House of Delegates shall be open to all members of the society, but only members of the House of Delegates shall have the right of voice or vote.

SECTION 3—CHARTERS

It may issue charters to county societies applying for affiliation with this society.

SECTION 4—AUTHORITY OVER COMPONENT SOCIETIES

It shall consider the reports of component societies, and have authority to make such recommendations and adopt such measures as may be deemed effective for building up and increasing the interest of these societies.

SECTION 5—FINAL AUTHORITY

The House of Delegates or Board of Trustees must approve all memorials and resolutions issued in the name of the society before they can become effective.

SECTION 6—BUSINESS DURING THE LAST SESSION

Unanimous consent shall be required for the introduction of new business at the last session of the House of Delegates during the annual meeting, except when presented by the Board of Trustees or the Committee on Finance. All new business so presented shall require a three-fourths affirmative vote for adoption.

CHAPTER V—SELECTION OF OFFICERS

SECTION 1—NOMINATING COMMITTEE

Each component society shall elect at its annual meeting one of its elected delegates to serve as a member of the Nominating Committee of this society, and one of its elected delegates alternate thereto; this elected member, or his alternate, shall present his credentials to the Secretary at the close of the first session of the annual meeting. The Immediate Past-President of this society shall be the member of the Nominating Committee representing the Fellows; if he shall not be able to serve, then at the close of the first session of the annual meeting the Fellows shall elect one of their number to be a member of the Nominating Committee, who shall forthwith present his credentials to the Secretary. The delegates, or their alternates so elected from their respective component societies, and the representative of the Fellows, shall compose the Nominating Committee. This committee shall meet at 8:30 p. m. on the first day of the annual meeting and report the result of its deliberations to the House of Delegates in the form of a ticket containing nominations for each of the offices to be filled, including Trustees, Standing Committees, Councilors, Delegates to the American Medical Association and to other medical organizations.

SECTION 2—PROCEDURE

(a) The Chairman of the Nominating Committee shall be the Immediate Past-President of the society or the member elected by the Fellows. The committee shall elect one of its own members to serve as secretary and to call the roll of accredited members of the committee as certified by the Secretary of the society. Nominations for all offices, standing committees, delegates to the American Medical Association and other medical organizations, shall be made by individual alphabetic roll call of the counties, the representative from the Fellows being called last. The representative of each county, when its name is called, may place in nomination a candidate, second a nomination, or waive its privilege to another county. The representative of the county so favored may then nominate a candidate or second a nomination, after which the roll call will be continued from the point where it was interrupted. The representative of the Fellows may nominate a candidate or second a nomination, and shall have a vote equal to the vote of a representative of a component society. The secretary shall announce the result on the completion of each call; and if the tabulation of any roll call be challenged, the roll will again be called. A majority vote of the members present shall nominate; and in the event that no candidate has received a majority of the votes cast, the name of the candidate receiving the least number of votes shall be dropped and the call of the roll shall be repeated until a nomination is made.

(b) The Secretary of the society shall furnish to the committee such information as is necessary for the proper conduct of its business, including a list of all officers, committees and delegates to be nominated.

(c) Nothing in this section is to be construed as preventing the nomination and election of Fellows to the Board of Trustees.

(d) The election of Trustees shall conform to the provisions of Article VI of the Constitution.

(e) The chairman shall read to the committee this section of the By-Laws (Section 2,

Chapter V) before proceeding to any other business.

SECTION 3—TIME OF REPORT

The report of the Nominating Committee, and the election of officers, standing committees, delegates to the American Medical Association and other medical organizations, shall be the first order of business of the society in the afternoon of the second day of the annual meeting.

SECTION 4—NOMINATIONS FROM THE FLOOR

Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the society; except that the President-Elect shall succeed to the office of President without process of nomination and election.

SECTION 5—MANNER OF VOTING

All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect.

SECTION 6—BEGINNING OF TERM OF OFFICE

(a) Officers and members of elected standing committees shall assume office immediately after adjournment of the annual meeting at which they were elected.

(b) The term of office of Delegates and Alternate Delegates to the American Medical Association shall begin on January 1 of the year following their election. The terms of office shall be for two years, ending on the second December 31 thereafter.

CHAPTER VI—DUTIES OF OFFICERS

SECTION 1—PRESIDENT

The President shall preside at all meetings of this society and of the House of Delegates. He shall appoint all committees not otherwise provided for, and shall be ex-officio member of all standing committees except the Nominating Committee. He shall deliver an address at the annual meeting of this society, and shall perform such other duties as custom and parliamentary usage may require.

SECTION 2—PRESIDENT-ELECT AND VICE-PRESIDENTS

The President-Elect and the Vice-Presidents shall assist the President in the discharge of his duties, and in his absence or disability the President-Elect, or the ranking Vice-President shall preside at all meetings of the society and of the House of Delegates, and perform all the duties pertaining to the office. In case of vacancy in the office of President by death, resignation, or removal, the President-Elect, and in his absence, the ranking Vice-President shall perform all duties pertaining to that office until the vacancy is filled by appointment of the Board of Trustees.

SECTION 3—SECRETARY

The Secretary of the society shall have the custody of the Constitution and By-Laws of the society and of the records of the society and the House of Delegates, under the direction of the Board of Trustees. He shall attend all meetings of the society and of the House of Delegates, and shall keep a record of their proceedings. He shall give notice of all general and special meetings of the House of Delegates or of the society, to the members of the said House or society. He shall notify Honorary Members of their election.

He shall require and receive from the secretaries of the county societies a list of their representatives in the House of Delegates and the Nominating Committee, and shall publish such lists at such times and in such manner as the House of Delegates may direct.

He shall have the sole custody of the Official Seal of the society and shall affix the same to such correspondence or instruments as the By-Laws may require or the Trustees or the President may direct.

He shall conduct such formal official correspondence in the corporate name of the society as the Trustees or the President may direct. The Board of Trustees shall make suitable provision for the detail and clerical work of the Secretary.

He shall submit annually to the House of Delegates a report of the work of his office, and shall furnish to the Board of Trustees or to the President, upon request, such information as may be necessary for the society's business, and shall perform such other functions as are specified in these By-Laws.

He shall be entitled to necessary expense in attending meetings or otherwise incurred in the transaction of the society's business, as authorized by the Trustees.

SECTION 4—TREASURER

The Treasurer shall give bond, at the expense of the society, in such amount as may be required by the Board of Trustees. He shall demand, receive and preserve all funds due the society, together with bequests and donations; and keep a correct list of the same, with the name of each donor. He shall not pay any

money out of the treasury except on resolution of the Board of Trustees, or upon voucher of the officer or committee responsible for the expenditure, countersigned by the Chairman of the Finance Committee, and as provided in the annual budget. His accounts shall be audited by the Trustees at such times as the Board or the House of Delegates may order, and he shall render at each annual meeting of the society a full statement of all transactions of his office. Whenever 90 per cent of the annual budget appropriated for any office or committee has been expended, he shall so notify the proper officer or committee chairman. He shall charge upon his books the assessment against each component society at the end of the fiscal year, collect and make proper credits for the same; and perform such other duties as may be assigned to him.

SECTION 5—BOARD OF TRUSTEES

(a) Organization. At the first meeting of the Board of Trustees following each annual meeting of the House of Delegates, the Board shall organize by electing a chairman and a secretary; and the chairman shall appoint such committees as may seem necessary or desirable. Meetings shall be called by the chairman, but any four members may require the chairman to call a meeting for such time and place as shall be designated by them in writing. Members shall have at least five days advance notice of all meetings. Nine members shall constitute a quorum.

The Board of Trustees at the organization meeting may appoint an Executive Committee to consist of the chairman of the Board of Trustees, the immediate Past-President, the President, the President-Elect and one elected Trustee to be selected by the chairman of the Board. The Executive Committee shall meet at the call of the chairman of the Board at the time and place designated by him. Its function shall be thoroughly to consider all matters to come before the Board of Trustees for its consideration and action. It shall have authority to take final action on all matters referred to it by the Board of Trustees, with power. In unusual circumstances requiring emergency action, when time does not permit the five day advance notice required, for meetings of the Board of Trustees, the Executive Committee may act for the Board of Trustees securing concurrence in the proposed action from a majority of the Board of Trustees by telephone (the whole Board to be canvassed) confirmed by telegram or letter, any action thus taken to be ratified by formal action of the Board of Trustees at its next subsequent regular or special meeting. Four members of the Executive Committee shall constitute a quorum.

(b) Powers. The Board shall exercise general supervision over the affairs of the society, with authority to act for the society between annual meetings, and to perform the following functions:

To make recommendations to the House of Delegates;

To advise in the deliberations of the several standing committees;

To supervise the work of the Publication Committee and, when necessary, to appoint an editor and such other assistants as the needs of the society may require;

To determine all salaries;

To pass upon all recommendations for incurring expense, over and above that provided in the budget;

To order all necessary expenditures;

To refer and otherwise dispose of all business, properly arranged for its disposition;

To require and hold the official bond of the Treasurer and to annually audit his accounts;

To fill vacancies in all offices and elected standing committees until the next annual meeting.

In the event of a vacancy in the office of Treasurer, by death or otherwise, the Board of Trustees shall select one of its members to fill the vacancy.

(c) Property. It shall have authority to lease, sell, or otherwise convey or dispose of any or all property of the society, both personal and real, and to execute therefor, good and sufficient lease, deed, or other conveyance.

(d) Finance Committee. Three of its members shall serve on the Committee on Finance in accordance with Chapter VIII, Section 5, of these By-Laws.

(e) Nominees to State Board of Medical Examiners. Acting for the society, and in accordance with the statutes of this state, as vacancies occur in the State Board of Medical Examiners by reason of the expiration of term, or otherwise, of members of said Board representing this society, the Trustees shall nominate for each appointment three members of this society, and the names of such nominees shall then be transmitted by the President of this society to the Governor of the state.

(f) Annual Report. It shall publish annually in the JOURNAL of this society a report

of its proceedings and recommendations, and shall render to the House of Delegates a summary of its activities.

CHAPTER VII—JUDICIAL COUNCIL

SECTION 1—ELECTION

The Councilors shall be elected as follows: At the first election of officers following the adoption of these by-laws, two (2) members shall be elected for a period of three (3) years; two (2) members for a period of two (2) years; and one (1) for a period of one (1) year; and as the terms of these elected Councilors expire new elections shall be for periods of three (3) years.

SECTION 2—COUNCILORS

The Councilors collectively, shall be known as the Judicial Council, and shall constitute the supreme judicial body of the society.

SECTION 3—MEETINGS

The Judicial Council shall meet immediately following the election of officers for the purpose of organization. Thereafter, the Judicial Council shall meet as often as may be necessary to transact its business at the call of the chairman. Three members shall constitute a quorum.

SECTION 4—DUTIES OF THE JUDICIAL COUNCIL

The duties of the Judicial Council shall be as follows:

(1) To interpret and rule upon all questions of an ethical nature that shall confront the House of Delegates or any other board or committee of the society;

(2) To adjudicate all disputes or controversies arising within The Medical Society of New Jersey;

(3) To receive complaints or accusations from any source concerning the professional conduct or ethical deportment of members of this society for immediate reference to the appropriate District Judicial Council, to be established as hereinafter provided and, in general, to expedite the actions of the several District Judicial Councils in the interest of assuring prompt and equitable handling of all such matters brought to the attention of the society;

(4) To receive, consider and rule on any matter of discipline concerning any member or members of the society brought to the Judicial Council on appeal from a county Judicial Council or equivalent body of a county medical society.

SECTION 5—DISTRICT JUDICIAL COUNCILS

There shall be a District Judicial Council in each Judicial District in the State, to be known as a "District Council". Each District Council shall consist of two members elected by each component county medical society within the district, together with the Judicial Councilor elected by the House of Delegates of The Medical Society of New Jersey to represent the district. Each elected member, except the chairman, shall serve a term of two years, the term of one member representing each county society terminating on May 31 each year. No member shall be eligible to serve simultaneously as a member of a District Council and of a county society Judicial Committee. A quorum of a District Council shall consist of five members, exclusive of the Judicial Councilor and action shall be taken by majority vote of those present.

The Judicial Councilor shall serve as the chairman of the District Council in his district. He shall be generally responsible to the Judicial Council for the administration of the affairs of the District Council. He shall render a report at each meeting of the Judicial Council relative to the work of the District Council over which he presides. Such report shall include a record of the disposition of all complaints or other matters referred to or considered by the District Council. He shall have voice but shall not vote in the deliberations of the District Council.

Each District Council shall also elect from among its members a secretary, and a vice-chairman who, in the absence of the chairman, shall perform the duties of the chairman.

SECTION 6—PROCEDURE FOR CONSIDERING GRIEVANCES

Any complaint, allegation or grievance concerning a member of the society, when received by the Judicial Council, shall be referred to the Judicial Councilor from the district in which the physician complained against maintains membership. Thereafter the Judicial Councilor shall present the matter at the earliest opportunity to the District Council of which he is the chairman.

Upon receipt of such a complaint, allegation or grievance, the District Council shall make such investigation as may be required to determine all the relevant facts and circumstances. Such investigation shall be conducted in a strictly confidential manner, and in accordance with rules of procedure to be estab-

lished by the Judicial Council. The physician concerned will have the right to appear in his own behalf.

If, after careful investigation, the District Council finds no cause for recommending disciplinary action against the physician or physicians involved, the case shall be closed and a report of such disposition shall be made to both parties and, through the chairman, to the Judicial Council.

If the District Council finds that a complaint, allegation or grievance can be settled by conference and conciliation between or among the parties, or if the District Council determines that the interests of the parties involved will be best served by the rendering of private advice to the physician in question, then the case shall be considered closed and a report of such disposition shall be made to both parties and to the Judicial Council.

If, after careful investigation, the District Council finds that there is *prima facie* evidence warranting disciplinary action, it, in consultation with the society's legal counsel, shall prepare or cause to be prepared a formal written complaint against the accused. The District Council shall then present or refer such complaint to the Judicial Committee of which the accused is a member for appropriate action by such county Judicial Committee.

If the District Council shall find that a complaint, allegation or grievance involves a matter which would empower the State Board of Medical Examiners to revoke or suspend a practitioner's license, it shall be the duty of the District Council forthwith, by written complaint, to refer the case to the Judicial Council which shall, in turn, refer the complaint to the State Board of Medical Examiners.

SECTION 7—ADMINISTRATION AND PROCEDURE

The administrative and legal costs of the operation of the Judicial Council and of the District Council shall be underwritten by The Medical Society of New Jersey in accordance with an annual appropriation for these purposes to be approved by the House of Delegates.

Every matter coming before a District Council shall be considered in a strictly confidential manner. The records of the District Council shall be maintained under the supervision of the Judicial Councilor for that district, and shall be subject to inspection exclusively by members of that Council and by legal counsel for the society. Except for purposes of consultation or testimony as required by the District Council, no member or officer of the Society shall be present at a meeting of a District Council when any complaint is under consideration.

In pursuance of its investigatory and judicial functions, the District Councils shall have authority to summon members of the Society to appear and testify, either in connection with a complaint involving the member summoned, or as witnesses in cases involving other members. In case any member should fail to respond to such a summons, the District Council shall be, and hereby is, authorized to cite such a member to his component society for contempt. Such a citation shall be considered equivalent to a charge of unethical conduct and shall take the course provided in Section 9.

The Judicial Council shall make and publish rules and regulations subject to approval of The Medical Society of New Jersey for the conduct of investigations, the disposition of cases, and the formulation of formal complaints by the several District Councils. Such rules shall specify periods of notice, procedure for disposition of complaints against physicians who are not members of the society, procedures for notification of complainants and defendants, maintenance of proper records and other pertinent regulations.

SECTION 8—SPECIAL PROCEDURE FOR COMPLAINTS INVOLVING FEES FOR PROFESSIONAL SERVICES

In a complaint involving the just or proper amount of a fee for professional services, the District Council shall first investigate and attempt to effect an amicable settlement. If the District Council shall be unable to reconcile the differences, then it may determine the fee which it considers just and proper under all the circumstances of the particular case. If the society member against whom the complaint is brought shall agree to abide by the decision of the District Council and shall register this agreement with the patient in a form to be prescribed for this purpose, then the case shall be considered closed and only an impersonal statistical report shall be rendered by the chairman to the Judicial Council.

If, however, the member should agree to the amount of the fee so fixed but fail to abide by his agreement, then the District Council may cite such a member for contempt and so notify the Judicial Committee of his county medical society for appropriate action.

If a member fails to accept such a determination in the first instance, such action may, in the discretion of the District Council, constitute grounds for the preferring of formal charges by the District Council to the county society Judicial Committee.

SECTION 9—FUNCTIONS OF COUNTY JUDICIAL COMMITTEES

Upon receipt of a formal complaint from the District Council, the county society Judicial Committee shall hear and try the matter in accordance with its By-Laws and established rules of order. If the county Judicial Committee shall determine that disciplinary action is warranted against the accused, it shall take such action in accordance with the By-Laws of the county medical society. A report of such action shall be filed with the Judicial Council.

SECTION 10—APPEALS

Any member of a component county society aggrieved by an action of the county Judicial Committee, or any applicant for membership who has been excluded from membership by a county society, or any lay person aggrieved by an action of the county society Judicial Committee may appeal from the decision or action of the county society or the county Judicial Committee to the Judicial Council.

Decision of the said Judicial Council in any matter so appealed shall be final, except that further appeal may be taken by either party to the Judicial Council of the American Medical Association, if the subject of the dispute falls within the jurisdiction of that Council.

Any appeal to the Judicial Council of The Medical Society of New Jersey must be filed with the Judicial Council within 45 days of the date of the formal notice to the aggrieved party of the action of the component society or of the county society Judicial Committee.

Form of notice of appeal and procedure in hearing and adjudication of same shall be in accordance with rules of procedure to be established by the Judicial Council, which shall be made available to the parties involved.

Upon filing a notice of appeal, the appellant and the component society or county society Judicial Committee will be required to submit to the Judicial Council all records and papers relative to the matter under appeal. All such papers shall be treated confidentially by the Judicial Council.

The Judicial Council may affirm, modify or reverse, by a majority vote of its members present and voting, the appealed decision. The Judicial Councilor presiding as chairman of the District Council shall not be eligible to sit on any appeal taken to the Judicial Council as herein provided. The Judicial Council may summon witnesses, take new evidence and investigate the appealed matter, in any manner required to develop the information necessary for a proper decision.

Until such time as the Constitution, Article V, shall be amended to remove from the House of Delegates the function of hearing appeals from the decisions of the Judicial Council, such appeals shall be heard and adjudicated by the House of Delegates, rather than by the Judicial Council of the American Medical Association.

CHAPTER VIII—COMMITTEES

SECTION 1—CLASSIFICATION

There shall be Standing Committees, Reference Committees, and Special Committees.

SECTION 2—STANDING COMMITTEES

The Standing Committees shall be:

Nominating Committee
Committee on Finance
Committee on Scientific Work
Committee on Annual Meeting
Publication Committee
Honorary Membership Committee
Welfare Committee
Committee on Medical Education
Medical Defense and Insurance Committee
Woman's Auxiliary Committee

and such other committees as the House of Delegates shall determine.

SECTION 3—APPOINTMENTS

Standing Committees, unless otherwise provided, shall be appointed by the President, and he shall designate the chairmen. The President shall be a member ex-officio of all the above named committees except the Nominating Committee. Unless otherwise ordered in these By-Laws, committee members shall serve for three years; provided that in committees of three members no two terms shall expire in the same year; and in committees of six members not more than two terms shall expire in the same year

SECTION 4—NOMINATING COMMITTEE

The Nominating Committee shall be selected and shall function according to the provisions of Chapter V of these By-Laws.

SECTION 5—COMMITTEE ON FINANCE

The Committee on Finance shall consist of three members elected by and from the Board of Trustees, and three members elected by and from the House of Delegates, and their term of office shall be for six years; provided that the term of one Trustee member shall expire every second year, and the term of one Delegate member on each alternate year. The Treasurer shall be a member ex-officio, his capacity being advisory and without vote except in case

of tie. The committee shall elect its own chairman. It shall prepare a budget to be submitted to the House of Delegates at the annual meeting, and it shall control the expenditure of money by officers and committees, as provided in Chapter IX of these By-Laws. The committee is hereby authorized to require from any officer or committee any necessary fiscal information.

SECTION 6—COMMITTEE ON SCIENTIFIC WORK

The Committee on Scientific Work shall consist of one member from each councilor district to be chosen by the House of Delegates, and two members appointed by the President. Those who are to be elected are as follows:

At the first election one (1) member shall be elected for a period of one (1) year; one (1) member for a period of two (2) years; one (1) member for a period of three (3) years; one (1) member for a period of four (4) years; and one (1) member for a period of five (5) years; and as the terms of these members expire, new elections shall be for periods of five (5) years each.

The members who are to be appointed by the President shall be appointed as follows:

The first appointment shall be for a period of one (1) year; and the second appointment for a period of two (2) years; and as the terms of these members expire, new appointments shall be for periods of two (2) years.

It shall choose its own chairman and secretary.

The duties and functions of this committee shall be:

(a) To collect information, through the county reporters or otherwise, of members who are interested in prosecuting scientific studies or research, privately or in hospitals, schools, health departments, or other agencies in the state;

(b) To support and encourage such work, as means and opportunity may be available, and in general to promote interest in original scientific work among the members of the society;

(c) To facilitate contacts and exchanges between workers in related fields in different parts of the State;

(d) To facilitate the presentation of such work and its results to the society, either at its meetings, through the committees in charge, or in the JOURNAL, through the Publication Committee.

SECTION 7—COMMITTEE ON ANNUAL MEETING

The Committee on the Annual Meeting shall consist of five members. It shall have complete charge of all arrangements, plans and programs for the annual meeting and all details pertaining thereto. It shall provide suitable accommodations for the annual meeting, viz: for the general and section sessions, house of delegates, trustees, committees, woman's auxiliary, and exhibits. The general plans for the annual meeting shall be subject to the approval of the Board of Trustees and shall be reported to them at intervals, with a complete outline at least four months before the meeting.

This committee shall have two sub-committees, one on *scientific program* and one on *scientific exhibits.*

One member of the committee shall be designated by the chairman, with the consent of the President, as Chairman of the Sub-Committee on Scientific Program. It shall be his duty to arrange for papers, addresses and orations for the annual meeting. He shall see that the speakers are properly received at the annual meeting and that the scientific papers are delivered as scheduled. He may appoint two other men to assist him in the work of this sub-committee. The classification and number of scientific sections shall be determined by this sub-committee. The chairman and secretary of the scientific sections shall be elected by each section, but shall be responsible to the chairman of the scientific program and shall report to him.

Another member of the Committee on Annual Meeting shall be designated by the chairman, with the consent of the President, as the Chairman of the Sub-Committee on Scientific Exhibits. He may in turn designate two other members with the consent of the chairman, to act as a sub-committee on scientific exhibits. The duty of this sub-committee shall be to prepare and arrange for all details in connection with scientific exhibits of the annual meeting.

SECTION 8—PUBLICATION COMMITTEE

The Committee on Publication shall consist of three members elected by the House of Delegates, with the Secretary an additional member ex-officio, and the Editor of the JOURNAL sitting with the committee in an advisory capacity. It shall publish and distribute the JOURNAL. Reports, papers, and discussions may be submitted to this committee for publication in the JOURNAL; but the committee shall have authority to curtail or abstract, or to return to the author, such material as seems to it unsuitable for publication, with a statement of the reasons therefor.

SECTION 9—HONORARY MEMBERSHIP COMMITTEE

The Committee on Honorary Membership shall be composed of three Fellows. It shall inquire into the standing and qualifications of all nominees for honorary membership in the society, and report the same with recommendations to the House of Delegates.

SECTION 10—WELFARE COMMITTEE

The Welfare Committee shall consist of not more than sixty (60) members, exclusive of Consultants, appointed annually, which number shall include the President and Secretary of this society, ex-officio. Each component county society shall be represented by at least one member, and candidates for such appointment may be suggested to the President by each component society. It shall keep minutes and records of its transactions. It shall have supervision over legislative matters, public health, public relations, and medical practice, subject, when necessary, to direction from or approval by the Board of Trustees or the House of Delegates. To this committee shall be referred all questions of professional welfare not included in the specific work of the Judicial Council. It shall be empowered to employ a special agent or agents, and to expend such moneys as shall be approved by the Committee on Finance and the Board of Trustees. The work of this committee shall be divided into four sub-committees—public health, legislative, medical practice, and public relations. Each sub-committee shall consist of five members appointed annually and its chairman shall be appointed by the chairman of the Welfare Committee with the approval of the President. Special Advisory Committees, of not more than fifteen (15) members each, to these committees may be formed on the approval of the Board of Trustees, and the members shall be appointed by the President.

SECTION 11—COMMITTEE ON MEDICAL EDUCATION

The Committee on Medical Education shall consist of five members. The first appointment shall be for a period of one (1) year; the second appointment shall be for a period of two (2) years; the third appointment shall be for a period of three (3) years; the fourth appointment shall be for a period of four (4) years; the fifth appointment shall be for a period of five (5) years; and as the terms of these members expire, new appointments shall be for periods of five years. It shall be the duty of this committee to provide a continuous program of post-graduate education for the members within the resources of the society. It shall advise upon, correlate and promote all of the post-graduate activities of the special committees in cooperation with educational institutions.

SECTION 12—COMMITTEE ON MEDICAL DEFENSE AND INSURANCE

The Committee on Medical Defense and Insurance shall consist of seven members, and shall have charge of all matters pertaining to alleged malpractice of members and all other types of insurance, such as health, accident, life, and automobile, which may be recommended to the members.

It shall have the responsibility for the protection of the members and the contracts and relations with the insurance company. It shall at all times be cognizant of the financial responsibility of the insurance companies, brokers, and agents with whom it is dealing, and shall make frequent reports to the Board of Trustees and annually to the House of Delegates on these matters. It shall not enter into contracts without the approval of the Board of Trustees or the House of Delegates. It shall maintain contact with the Judicial Council and refer complaints of an ethical nature to that body.

SECTION 13—ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

(a) The Advisory Committee to the Woman's Auxiliary shall consist of five members. It shall at all times be cognizant of the activities of the Woman's Auxiliary and shall be the official liaison body between the Auxiliary and the Medical Society. It shall act as an advisory body in answering questions submitted to it by the Auxiliary, and shall be responsible for explaining the policy and programs of the Medical Society in matters pertaining to the Auxiliary.

(b) It shall receive and consider suggestions from the Auxiliary for activities in which the Auxiliary might assist the Medical Society.

(c) It shall make frequent reports on the Auxiliary's activities to the Trustees, and an annual report to the House of Delegates.

(d) It shall ascertain the need for funds by the Auxiliary and shall have supervision over the expenditure of such funds appropriated by the Society.

(e) This Committee shall recognize the close relationship between the activities of the

Auxiliary in matters pertaining to the policy and programs of the Medical Society and the activities of the committee of the Medical Society having jurisdiction over such activities. Therefore, any program of the Auxiliary in this connection shall be sponsored by that committee of the Medical Society whose duty it is to deal with that particular activity, and after approval by the Board of Trustees, shall be financed within the limitations of the budget allotted to that particular committee.

(f) This Committee shall recognize that an important function of the Woman's Auxiliary is to act as hostess at the Annual Meeting of the Society and to the Auxiliary of the American Medical Association when it meets in New Jersey, and that no other activities of the Auxiliary shall detract from this function.

SECTION 14—REFERENCE COMMITTEES

Immediately after the organization of the House of Delegates at each annual meeting the President shall appoint, from the members of the House, reference committees of five members each, unless otherwise provided, to serve during the session at which they are appointed. To these committees may be referred any reports, resolutions, measures, or propositions which have been presented to the House. When a matter is referred to any such committee, it shall meet forthwith, discuss the question referred, and hear debate thereon by any interested member of the society; and shall submit its recommendations at the next session of the House for action.

SECTION 15—NAMES OF REFERENCE COMMITTEES

There shall be the following Reference Committees, and any others to be created by the House of Delegates as need arises:

(a) Credentials—to consist of one member to serve with the Secretary and the Treasurer, who are members ex-officio.

(b) Resolutions and Memorials.

(c) Constitution and By-Laws.

(d) Miscellaneous Business.

SECTION 16—CONTINUANCE OF FUNCTION

On the order of the President or House of Delegates any reference committee may be created a *special* committee in order to continue, after the annual meeting, work which has been initiated but which cannot be completed during that meeting; but there shall be a strict limitation, in the order for its continuance, as to its function and term of life.

SECTION 17—SPECIAL COMITTEES

Special committees may be created by the House of Delegates or by the Board of Trustees. They shall be appointed by the President, or the Chairman of the Board of Trustees, and their specific functions and term of life shall be clearly defined. The limitations in regard to incurring expense provided for in Chapter III, Section 2, of these By-Laws shall apply also to these committees.

SECTION 18—ADDING TO SIZE OF COMMITTEE

The President may at any time, on request of any committee, appoint additional members thereto, in order to meet unexpected or unusual demands on that committee; provided that the term of such emergency appointees shall cease with the close of the next annual meeting of the society.

CHAPTER IX—FINANCE

SECTION 1—PERMANENT FUND

(a) There is hereby established in the custody of the Treasurer a Permanent Capital Fund, to consist of any money which may come to The Medical Society of New Jersey by gift or bequest and not otherwise designated, any balance remaining unexpended at the close of the fiscal year which the Board of Trustees may direct to be added to this fund, and such other money as may from time to time be available for this purpose.

(b) This fund shall be deposited or invested by the Treasurer in such manner as is by law provided for trust funds, or as the Board of Trustees may direct. The income from such funds may be used for the general purposes of the society, unless otherwise ordered, but the principal of the fund may be expended only for purposes of permanent value to The Medical Society of New Jersey, when so ordered by a two-thirds vote of the House of Delegates, such expenditure having previously been approved by the Board of Trustees and notice of such approval sent to the component societies at least one month in advance of the meeting of the House of Delegates at which action is taken.

SECTION 2—GENERAL FUND

(a) Annual Assessment of Members. On the first day of January in each year there shall be levied on each component society a *per capita* assessment on the membership of such component society, as hereinafter set forth (Par. b), to be paid to the Treasurer of The

Medical Society of New Jersey not less than five days before the first of March, together with a list of the members for whom such payment is made. Provided however, that no assessment shall be levied against any component society for any member who is exempted by the component society from the payment of annual dues for financial reasons. Such exemptions are to be for one year only, and if it is necessary to continue exemption for a longer period reapplication must be made to The Medical Society of New Jersey and in no case shall exemption be continued for a period longer than three (3) years. A similar *per capita* assessment shall be paid in the same manner immediately upon the admission or reinstatement of any such member, except that for a new member admitted after October first of any calendar year, one-quarter of the regular assessment shall be paid. Every member for whom the assessment is paid shall be listed as a subscriber to and entitled to receive the JOURNAL.

(b) Estimating the Assessment. Two weeks before the annual meeting each officer and standing committee shall send to the Chairman of the Committee on Finance an estimate of the amount of money necessary for the work of his office during the next fiscal year. The Committee on Finance shall then proceed to consider and determine the amount of money to be raised, fix the *per capita* assessment to be levied on the component societies, and report its recommendations to the House of Delegates at the first session of that body. This report may then be approved, amended, or rejected by the House of Delegates, but final action on it shall not be taken before the last session of the meeting.

(c) The Budget. No officer or committee may spend more money than the amount allowed in the budget without approval of the Committee on Finance, which may, however, apportion to such officer or committee, on application, any unexpended balance of other items; provided that the total amount disposed of by the Finance Committee must not exceed the total amount voted by the House of Delegates, unless by special authority of the Board of Trustees.

SECTION 3—FISCAL YEAR

The fiscal year of the society shall begin on the first day of June, and the financial report of the Treasurer and of all officers and committees shall be for this period. The budget estimates and appropriations shall likewise be for the same period.

SECTION 4—BUDGETS

All motions and resolutions appropriating money for special purposes shall fix a definite sum, and shall state the budget account against which the expenditure is to be charged. Such resolution must be passed by the House of Delegates and approved by the Board of Trustees.

CHAPTER X—COMPONENT SOCIETIES

SECTION 1—CHARTERS

County medical societies of this state that shall adopt the principles of organization in accord with the Constitution and By-Laws of this society may, upon application to the House of Delegates, receive a charter, and thereby become a component society in affiliation with The Medical Society of New Jersey as hereinafter provided.

SECTION 2—CONDITIONS OF CHARTERING

Charters shall be issued to county societies having at least ten members, under seal of The Medical Society of New Jersey and signed by the President and Secretary; but there shall be only one component society chartered in each county. Upon recommendation of the Board of Trustees, this society may revoke the charter of any component society whose actions are in conflict with the letter or spirit of the Constitution and By-Laws.

SECTION 3—QUALIFICATIONS OF MEMBERS

(a) Judging Qualifications. Each component society shall be the judge of the qualifications of its own members, subject to the right of approval of this society; but, as such societies are the only portals to this society and to the American Medical Association, it is recommended that every reputable and legally registered physician shall be deemed eligible to membership in a component society.

(b) Biographies of New Members. When a physician applies for membership or when an application is made to be received on transfer, the secretary of the component society shall forward his name and address to the biographic department of the American Medical Association for such information as may be on file relative to his record. Printed forms for this purpose will be furnished by the Secretary of this society. After the adoption of these By-Laws, no new member shall be enrolled or accepted on transfer until this provision shall have been carried into effect.

(c) Probationary and Associate Members. Each component society, as a requisite of eligibility to active membership, may require ap-

plicants to serve a probationary period of not longer than two years in the society as *associate members.* Associate members shall have such privileges in component societies as the Constitution and By-Laws of the respective societies may provide, except the right to vote and hold office. Their dues shall be those fixed by their respective component society, plus the subscription price of the JOURNAL as determined by the Board of Trustees.

(d) (Explanatory note. — The following resolution defining courtesy members was passed by the House of Delegates, April 29, 1937: "Associate members of component societies shall be physicians who may be elected to active membership after a period of probation. All others now called associate members shall be termed *courtesy members.*" Transactions, 1937, page 50.)

SECTION 4—APPEALS

Any physician who may feel aggrieved by the action of a component society in refusing him membership, or any member of a component society who has been suspended or expelled, shall have the right of appeal through his District Councilor to the Judicial Council. The powers of the Judicial Council and its method of procedure are defined in Chapter VII of these By-Laws.

SECTION 5—TRANSFERS

When a member in good standing in a component society moves to another county of this state, his name, upon request, may, by a majority vote of those present, be transferred to the roster of the component society into whose jurisdiction he moves.

SECTION 6—JURISDICTION

Any physician living on or near a county line may hold his membership in the component society most convenient for him to attend, on permission from the component society in whose jurisdiction he resides; *provided that* no physician may be a member of two component societies at the same time, nor of this society and another state society.

SECTION 7—REPORTERS

Each component society shall elect a reporter, who shall furnish the Editor and the Secretary of the Committee on Scientific Work with brief reports of its meetings and of items of interest concerning the society and its members, extracts of papers and interesting case reports, notice of the prevalence of contagious and other diseases in the county, and the election, removal or death of members.

CHAPTER XI—RESIGNATION OR REMOVAL OF OFFICERS

Any officer of this society may resign his office, or he may be removed therefrom by a two-thirds vote of the House of Delegates, when guilty of neglect of duty, improper conduct, or upon violation of the Constitution and By-Laws. In either or all cases the society shall fill the vacancy so made as provided for in Article IX of the Constitution, and in Chapters V and VI of the By-Laws.

CHAPTER XII—RULES OF CONDUCT

The "Principles of Medical Ethics" adopted by the American Medical Association shall govern the conduct of the members of The Medical Society of New Jersey in their relations to each other and to the public.

CHAPTER XIII—RULES OF ORDER

The deliberations of the society shall be governed by parliamentary usage as contained in Roberts' "Rules of Order", when not in conflict with this Constitution and By-Laws, unless otherwise determined by a two-thirds vote of its respective bodies.

CHAPTER XIV—CONFERRING THE DEGREE OF DOCTOR OF MEDICINE

Candidates for the degree of Medicinae Doctor may apply to any component society of this state, and shall be admitted to examination under the following rules and regulations:

First. Each component society shall appoint annually, or *pro re nata,* a committee of not less than five members, who shall conduct the examinations.

Second. All examinations shall be in the presence of The Medical Society of New Jersey at a regular meeting; and no candidate shall be examined until he has given satisfactory evidence of having reached the age of twenty-one years, is of good moral character, that his preliminary education has been such as to qualify him for the study and practice of medicine, and has pursued his medical studies in some medical college whose requirements do not fall below the minimum standard of the Association of American Medical Colleges.

Third. The examination shall extend to all of the branches taught in the medical schools recognized as aforesaid; and the candidate

shall then be balloted for by The Medical Society of New Jersey. If he shall receive the approving votes of two-thirds of all the members present, the presiding officer shall give a certificate to that effect to the candidate.

Fourth. The certificate may be presented at the next or any subsequent regular meeting of The Medical Society of New Jersey, not extending beyond the period of three years, with a written thesis upon some medical subject; and if, upon a ballot, he shall be approved by a majority of the members present, the candidate, upon the payment of fifteen dollars, shall be entitled to receive a diploma in the following form:

This will certify that we ..... censors of the District Medical Society for the County of ..... appointed by The Medical Society of New Jersey, have this day carefully and impartially examined ..... of ..... county of ..... state of ..... and being well satisfied with his attainments in the various branches of Medical and Surgical Science and of his moral character do recommend him to the president of The Medical Society of New Jersey as a proper person to receive a license to practice physic and surgery throughout the state of New Jersey.

CHAPTER XV—AMENDMENTS

These By-Laws may be amended at any annual meeting of The Medical Society of New Jersey by a two-thirds vote of the members present, provided that at least fifty members are present; and, provided further, that the amendments shall have been submitted to the Committee on Constitution and By-Laws, and shall have been twice read in open meeting and laid upon the table for one day.

Upon the adoption of this Constitution and these By-Laws all previous Constitutions and By-Laws are thereby repealed.

THE LEGAL STATUS OF THE MEDICAL SOCIETY OF NEW JERSEY

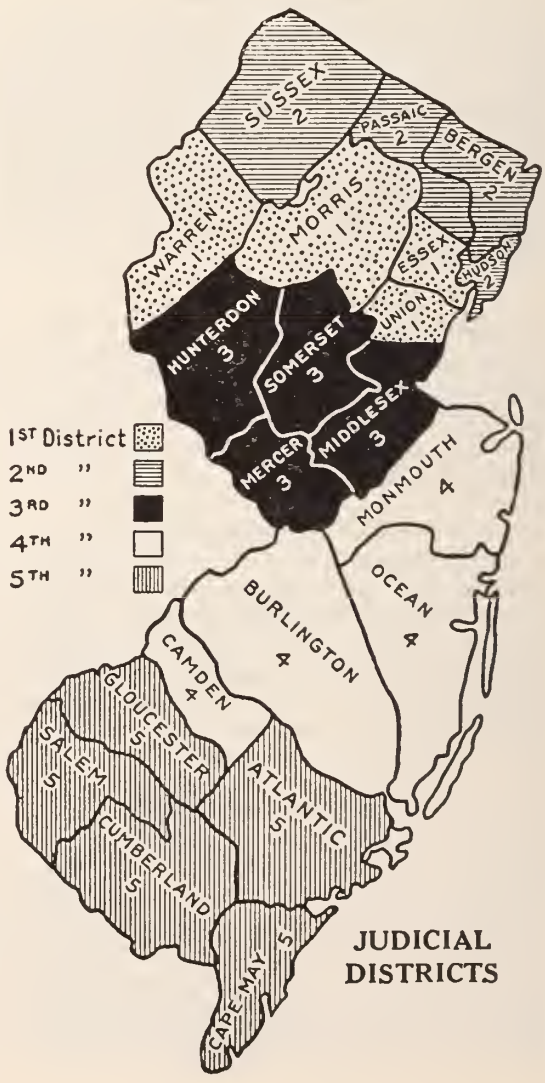
The Medical Society of New Jersey was organized on July 23, 1766, by seventeen physicians of "East" New Jersey who met at "Mr. Duff's" in New Brunswick, it being the first State Medical Society to be organized in the United States. Its existence was recognized by law in 1783, and it was incorporated by an Act of the Legislature passed on June 2, 1790, by which general powers of holding property were conferred on it. Fifty-two physicians were named in the Act as incorporators.

A second Act of Incorporation was passed on March 7, 1816, authorizing the formation of District and County Societies, which should have the power to examine candidates for licensure to practice medicine. Those who passed the examination successfully were given licenses by the President of the State Society, authorizing them to practice anywhere in New Jersey.

An Act passed February 10, 1818, provided that the State Medical Society should be composed of four delegates from each District or County Medical Society, thereby developing the organization in the representative form in which it exists today.

The authority to grant the degree of "Medicinae Doctor" was granted to the society in 1825; and may still be exercised according to Chapter XIV of the present By-Laws.

The present Charter of the society was granted by the Legislature in 1864, in response to a formal request of the society adopted on January 27, 1864. The charter which appears on page 374 is reprinted verbatim from the Laws of New Jersey of 1864.



NEW JERSEY STATE DEPARTMENT OF HEALTH
PUBLIC HEALTH NEWS FOR THE PHYSICIAN

The Medical Society of New Jersey and the New Jersey State Department of Health on June 28, 1951, issued the following joint statement:

"Physicians are being urged to complete routine immunizations against whooping cough, diphtheria, smallpox, and tetanus before children reach the age of six months. Immunizations and booster doses in children over six months of age should be administered during the winter and spring months preferably during the period from October to June.

"This policy is presently being recommended by The Medical Society of New Jersey and by the New Jersey State Department of Health because studies in this country and abroad suggest a possible relationship between injections and the subsequent development of paralysis in persons who get poliomyelitis.

"The National Foundation for Infantile Paralysis reports that the great majority of patients with poliomyelitis have no history of recent injections.

"There is no evidence that injections for the prevention and treatment of disease cause poliomyelitis. Physicians should not withhold injections needed for the immediate prevention and treatment of disease.

"The number of cases of poliomyelitis reported to the New Jersey Department of Health thus far in 1951 is substantially below the number reported in the same period in 1950 and in 1949. New Jersey is not presently experiencing a high rate of poliomyelitis.

"One of the most widely accepted theories of the transmission of poliomyelitis is that the virus is carried in the nose and throat secretions, and transmitted by infected droplets in talking, coughing, and sneezing. The following general measures are recommended:

(1) Avoid exposure to spray from the nose and mouth of other persons.
(2) Avoid the use of common or unclean eating and drinking articles.
(3) Keep hands and unclean articles away from the nose and mouth.
(4) Wash hands in soap and water immediately after voiding bowels or bladder and before eating.
(5) Avoid fatigue and chilling."

INTERNATIONAL COLLEGE OF SURGEONS

The annual assembly of the United States chapter of the International College of Surgeons will be held in Chicago on September 10 through 13, 1951, at the Palmer House. Prominent surgeons from the United States and other countries will participate. Sessions will be held by all specialty sections.

The annual banquet will take place Wednesday, September 12. Lawrence Abel, F.R.C.S., of London, will be the principal speaker. The Convocation will be held in the Civic Opera House on September 13. Senator Estes Kefauver will deliver an address on "The America of Tomorrow".

Hotel reservations may be arranged by writing to the Housing Division, Chicago Convention Bureau, 33 North LaSalle Street, Chicago 2, Illinois.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, May 11, 1951, DR. G. RUFFIN STAMPS, presiding.

MR. MILLARD E. CUSKADEN, Chief of State Plan Disability Benefits, spoke briefly of a mutually agreed-upon plan whereby an attending physician may request a consultation with a physician of his own choosing. The purpose of the plan is to facilitate a satisfactory disposition of cases in which the disability has been drawn out unreasonably beyond the normal allowance in such a case. This proposal, approved by the Trustees of The Medical Society of New Jersey, is so designed as to embarrass neither the patient nor the attending physician. Mr. Cuskaden asked for the cooperation of all members doing this type of work.

Dr. John S. McQuade, speaking in behalf of the Atlantic County Dental Society, urged the approval of the Society for the fluoridation of public waters as a preventive of dental decay. There was considerable favorable discussion and it was brought out that the plan, if approved at a local level, had the sanction of the State Department of Health. It was generally agreed that the plan was a forward step in medical and dental progress and it was therefore voted that this Society go on record as approving the fluoridation of public waters as a preventive of dental decay.

MAJOR ROBERT G. SALASIN was elected to Regular membership.

It was moved and seconded that Dr. Rosen's written resignation be accepted.

Dr. Stamps, in behalf of the Society presenteu certificates of honor to four of our colleagues who have devoted fifty or more years of their lives to the practice of our profession. He noted that this acknowledgment of their achievement was a fitting, if inadequate tribute to them. Presentation was made in person to Drs. Myrtile Frank and David Berner, and to Drs. Sharpe and Bennett, in absentia.

The following officers were elected: *President*—DR. ANTHONY G. MERENDINO; *Vice-President*—DR. ROBISON D. HARLEY; *Secretary*—DR. LOUIS ROSENBERG; *Treasurer*—DR. JOHN W. HOLLAND; *Reporter*—DR. LEONARD B. ERBER; *Historian*—DR. HALVOR L. HARLEY.

Dr. Merendino spoke briefly of his plans for the coming year. He pledged himself to do all in his power to continue and to advance the high aims of the Society.

Dr. Whims introduced the following resolution:

"That this Society approves the principle of Exchange Students in the interest of better understanding between men and approves of Hospitals in this State accepting for intern training Citizens of foreign countries, who are recent graduates of acceptable foreign schools; and that the Medical Staffs of said Hospitals be urged to teach not only the best in American Medicine, but also by example and precept, the best in American Democracy, with the hope that the Exchange Student will be so saturated with Democracy as to be effective in sowing the seeds of Democratic Principles upon his return home."

It was moved and seconded that the resolution be adopted, and the motion was carried.

MIDDLESEX COUNTY

Frank L. Paret, M.D., Reporter

The *Middlesex County Medical Society* held its regular monthly meeting at the Roosevelt Hospital, Metuchen, on June 20, 1951.

PAUL ZITO, M.D., Perth Amboy, was elected to Regular membership on transfer from the Kings County Medical Society of New York; and HUGH WILLIAMS, M.D., Highland Park, who is entering the United States Public Health Service on July 1, is to be carried in his present status as Associate member during his tour of duty.

A motion was unanimously approved that all members entering the U. S. Armed Forces or Public Health Service, be carried in the present dues-exempt status as long as desired by the member.

Dr. Marshall Smith, Chairman of the Medical Defense Committee, stated that the Freedman Trucking Company of New Brunswick, had donated a G. M. C. Suburban Truck, which is to become the property of the County and carry a State License. This truck is to be equipped by Johnson and Johnson with radio-sending and receiving equipment. The truck is the first of its kind in the United States and will be presented, when completed, to Mason Gross, Ph.D., Chairman of the Middlesex County Defense Committee with suitable publicity and attending notables.

A presentation of the findings of the State Committee, approved by the Governor, on the need for and location of a Medical School in New Jersey was made by John S. Van Mater, M.D. The reasons given were:

1. New Jersey is not having its students admitted to out-of-state medical schools in desired numbers.
2. No continuation facilities available for doctors to advance their medical knowledge.
3. The nation-wide shortage of interns and residents, especially in New Jersey.
4. Need for concrete assistance to Public Health programs which would arise from the presence of a medical school.
5. No facilities for research in the state and consequently by-passing of the state of available funds for this purpose.
6. Probability of a continuation of all these adverse trends.

Following a discussion, a motion was passed by the Society that a committee of doctors of the various communities of the county be appointed to investigate the desirability of a medical school in Middlesex County and to confer with prominent citizens of the area on this question, reporting, if possible, by July 5 to the State and A.M.A. Commission when it meets in New Brunswick.

WOMAN'S AUXILIARY

CONVENTION NOTES

The 24th Annual Convention of the Woman's Auxiliary to The Medical Society of New Jersey was held at Haddon Hall, Atlantic City, on May 14, 15 and 16. The Pre-Convention Board Meeting on Monday afternoon was opened by Mrs. R. John Cottone, president. The committee chairmen and county presidents reported items of unusual interest. Of particular note were: 1. The six day lecture tour by Mrs. Lloyd Hamilton to all High Schools in Hunterdon County. The movie "Girls in White" for the recruitment of nurses was shown in conjunction with the lecture. 2. Thirteen hundred dollars realized by Passaic County from their card party for nurses scholarships.

Mrs. Cottone presided over the General Sessions Tuesday, May 15. The minutes of last year's convention were accepted as printed in THE JOURNAL of The Medical Society of New Jersey. Mrs. Arthur Casselman conducted an impressive Memorial Service for the following departed members: Mrs. David Kraker, Mrs. Charles A. Minnefor and Mrs. W. W. Wolfe of Essex County; Mrs. E. B. Woodward and Mrs. Howard Wiesler of Mercer County; Mrs. William Neer and Mrs. Abraham Cavin of Passaic County; and Mrs. George Orton, Past State President and Mrs. D. C. Dwager of Union County. Yearly reports were published in a mimeographed booklet as they were last year. Mrs. Cottone read the President's report which commended the work of her chairmen and their outstanding programs. She stressed that all projects of the Auxiliary must be practical and must be approved by the Medical Society. Many of the counties have founded more scholarships for nurses. Some are trying a joint nurse recruitment program with other organizations. The Safety Display and Today's Health Display were called to the attention of the members.

Interesting suggestions from the counties included the wearing of name cards at meetings by Camden County. Auxiliary members in Camden County were trained as Instructors to teach the Red Cross First Aid Course as part of the Civil Defense Program. Essex County has a permanent committee for nurse recruitment including members for P.T.A., the church auxiliaries, the A.A.U.W., the Board of Education and others. Since a new Veterans Hospital is opening in that county in June, 200 more nurses will be needed at that time.

Mrs. Rauschenbach reported on the activities of the Public Relations Committee. She mentioned in particular the Fifth Annual Health Conference which was to be held in June at Camp Christmas Seal near Paterson. The theme of the meeting was "Community Plans for Good Health".

The luncheon on Tuesday, May 15, was in honor of the retiring president, Mrs. R. John Cottone. Dr. Aldrich Crowe, President of The Medical Society of New Jersey, Dr. Lewis C. Fritts, Chairman, State Medical Society Advisory Committee, and the guest speaker, Mr. Richard I. Nevin, Executive Officer of The Medical Society of New Jersey, were introduced by Mrs. Robert B. Walker, toastmistress. In his speech, Mr. Nevin emphasized for his hearers the seriousness and significance of the work of the year about to begin. "We are not, in these tragic times, initiating some light and unimportant program of a social character. Even as our boys, who have foregone the lovelinesses of springtime and youth to keep a 'rendezvous with Death', we are called upon to wage relentless war against monstrous evil in order that our very civilization may survive." He called upon his audience, not only in their actions as members of the Woman's Auxiliary, but in all the actions and attitudes of their personal lives, to keep faith with their ideals of duty and service. "Only in this way," he concluded, "can we look forward to a year of ultimate satisfaction and worthwhile attainment". The past president's pin was presented by Mrs. David B. Allman, past-president of the Auxiliary to the American Medical Association. Mrs. Charles Cohan presented Mrs. Cottone with a gift from the Mercer County Medical Society and one from their Auxiliary.

The General Session was continued in the afternoon with the revision of the State By-Laws and reading of the proposed revisions to the By-Laws of the National Auxiliary. The delegates approved the recommendation of the establishment of a central office for the Auxiliary in Trenton with a paid clerk or secretary under the direction of the Auxiliary President. The nominating committee for 1951-52 was nominated from the floor: Mrs. Clarence Whims, Mrs. Ralph Bush, Mrs. John

Kustrup and Mrs. Pascal Baiocchi. The report of the Nominating Committee for 1950-51 was read by Mrs. David B. Allman. Since there were no nominations from the floor, the slate was unanimously elected. The 24th Annual Meeting was then adjourned. It was resolved to express the thanks of the members to Mrs. R. John Cottone, Dr. Aldrich Crowe and Mrs. Harry Subin for their efforts to make the meeting a success. Mrs. William C. Wells and Mrs. J. Howard Hornberger were appointed to the reading committee and the new officers were installed with Mrs. Thomas H. McGlade of Camden County as the 25th President.

Dr. and Mrs. Sigurd W. Johnsen were the guests of honor at the Inaugural Breakfast which was held Wednesday, May 16. Dr. Johnsen, incoming President of the Medical Society, extended greetings to the Board and his congratulations to Mrs. Thomas H. McGlade, newly elected president of the Auxiliary. He referred to the present as the "Twilight Time" and suggested that we "Proceed with caution". Dr. Johnsen spoke of the patriotic and successful job done in fighting socialized medicine and advised that now some consideration should be given to the doctor himself. He recommended an investigation of social agencies where funds given for health are concerned.

The Post Convention Board Meeting and School of Instruction followed the Breakfast, Mrs. Thomas H. McGlade, presiding. The meeting was opened with greetings from Mrs. Matthew Molitch of Atlantic County. Mrs. Thomas Delaney of Essex County was the principal speaker. Mrs. Delaney spoke on the problem of the Chronically Ill. "Every community should provide community organization for service to the chronically ill," she said. Success with the chronically ill program depends upon the backing of medical people and the team-work of all agencies. The speaker called upon the Woman's Auxiliary to spark plug this work with the backing of the medical profession. The problem of each county is different and a survey should be made to determine the community's special problem. Quoting the Surgeon-General, Mrs. Delaney said, "Chronic disease is the greatest drain on man-power in the country". One-half million children are victims of rheumatic heart disease; another one-half million people have orthopedic handicaps. Chronic illness is an impairment of health that requires extended periods of medical care and services with the result that patients become medically indigent. The speaker explained the setting up in Essex County of a new service to fill the gap between the practical nurse and a domestic servant. The Home-Makers Service provides women who go into the homes and do light housekeeping, but no nursing. The charge of $1.25 an hour is assumed either by the family or some charitable organization. Mrs. David B. Allman spoke on Parliamentary procedure. Reports were given by the officers and state chairmen. A period followed when out-going chairmen gave valuable directives to their incoming successors with a question and answer session.

ANNUAL SPRING CONFERENCE

Mrs. Stuart Zeh Hawkes, Chairman, Press and Publicity

The Woman's Auxiliary to The Medical Society of New Jersey held its Fifth Annual Spring Conference, in conjunction with the Passaic County Tuberculosis and Health Association, at Camp Christmas Seal, Paterson, New Jersey, on June 4. Mrs. Stewart Alexander, Chairman of Public Relations, presided. The community plans for good health through county health councils and civil defense were the subjects under discussion. The meeting was well attended and the pleasant hall was filled, as was the dining porch at luncheon.

Mr. Richard I. Nevin, Executive Officer of The Medical Society brought greetings from Dr. Sigurd W. Johnsen, President of the Society. Mr. Nevin stated that the good health of a community is never a happy accident, it comes through good planning. At the early general session, Dr. Joseph E. Mott, Chairman of the Subcommittee on Public Relations for the Society, told of the value of the Health Council. He stated that a new coordinating health body has appeared in 32 of the largest cities and that there are 1200 local health councils that go under many names. A council is a banding together of all official health societies in a community, it keeps public interest in health at a high pitch. Each member agency keeps its individual identity. In New Jersey there is no State Health Council, however, there is a Citizen's Health Committee, and there are councils on local levels in many counties.

The moderator for the panel on County

Health Councils was Dr. Joseph M. Keating, second vice-president of the Passaic County Medical Society. Dr. Robert Wright, industrial physician to the Continental Can Company, represented industry's contribution to the Health Council. He traced the role of medicine in industry. The industrial doctors have made many health and safety changes. The keynote in that type of medicine is preventive medicine.

Mrs. Asher Yaguda, Treasurer of the Auxiliary, spoke on the role of the School Health Council, stating that the Auxiliary has put the 4-Point Program into effect in 17 counties. Mrs. Asher Yaguda said that the School Health Council might be the basis for the County Health Council. Speaking on the role of the Health Department was Mr. Ralph Fisher, State Consultant in Community Health Organization. He said that the Health Department has used Health Council technics for many years. He added that the Governor's Committee on Health deserves much credit for the passage of Bill 1A, and that Mrs. Lodovico Mancusi-Ungaro was the sparkplug of the Committee.

The role of the hospital was discussed by Mrs. Mary Conklin, Superintendent of the Hackensack Hospital. She stated that the hospitals have been alerted for disaster and are aware of all the possibilities. She felt that through the combined efforts of all the health agencies and hospitals we can meet whatever lies ahead. The nurse's role was reviewed by Miss Margretta Fortuin, R.N., Director of Nurses at Paterson General Hospital. She stated that the health needs of a community are best known by a public health nurse, and that nurses could help prevent duplication on the Health Council. She placed much stress on courses in home nursing.

Dr. J. Allen Yager, President of the Passaic County Heart Association, spoke on the role of the practicing physician in the council. He stated the medical profession must be an integral part of any health council. Dr. Yager felt that the functions of the Council would be: to exchange ideas, seek for information, extend health facilities in rural areas, plan medical care programs, teach the doctor that the physician's office is an avenue to health education, stress the prepayment plans, convalescent care, preschool examinations and urge disease detection.

The dentist's role was discussed by Dr. Frederick F. Lauer, Supervisor of the New Jersey State Dental Program, who stated that dental health programs should teach people to appreciate the health of the mouth and to advise children on care of their teeth. William Doppler, Ph.D., talked on the role of the health agencies. Executive Officer of the New Jersey Tuberculosis League, Dr. Doppler said that the point is to get something done that needs to be done. Mr. Gilbert Hunsinger, Executive Secretary, Council of Social Agencies of Newark and West Hudson, spoke on the part that welfare agencies play.

Dr. William E. Bray moderated the panel discussion on what can be done to form a satisfactory health council. Dr. Max Snyder of the New Jersey Safety Council pointed out that health and safety are closely allied. The safety program is one of prevention and pays many dividends. Mr. Sam Peskin of the National Health Council threw the meeting open for questions. In answer to one question, Mr. Peskin said that a professional worker, very active layman, or an organization often form a small nucleus of people who are aware of what a health council can do for a community. Frequently interest is aroused by just one problem, or a survey is made and the people become interested and carry the findings on to real action and thus a health council is formed.

Following a delightful luncheon, Mrs. Alexander thanked Mr. Gregory Piccini for offering the pleasant facilities of Camp Christmas Seal for the meeting. Mr. Ernest J. Appel, President of the Passaic County Tuberculosis and Health Association, said that better health in the home, school and community will result from joint health meetings. The President of the Passaic County Medical Society, Dr. Sandor A. Levinsohn greeted the group and said that the Woman's Auxiliary was doing yeoman's service in many activities. Mrs. Thomas H. McGlade, President of the Woman's Auxiliary to The Medical Society of New Jersey, reported that previous health conferences had resulted in a rural health program reaching 20,000 a year, the formation of the School Health Council in 17 counties and the organization of the Essex Service for the Chronically Ill.

Dr. Harrold A. Murray, President-Elect of The Medical Society of New Jersey, was the moderator of the afternoon session "Your Life Depends on It". The discussion was on Civil Defense. The medical aspect was presented by Dr. Gerald W. Sinnott, Assistant Medical Director of the Medical Center of Jersey City. Dr. G. Frederick Moench, Deputy State Chairman of the Medical and Health Preparedness Committee for New Jersey, presented the State Health Department's views on civil defense.

BOOK REVIEWS

Injuries to the Ankle. By J. Grant Bonnin, M.D., F.R.C.S. Pp. 412. New York, Grune & Stratton, 1950. ($9.75)

Dr. Bonnin has made another excellent contribution to the orthopedic literature in this treatise on ankle injuries. He discusses the anatomy with thoroughness; he explains with explicit detail the individual lesions sustained by the ankle joint as a result of the various violences to which it is subjected and which give rise to the particular types of fractures. His aim is to emphasize that there is no single method of treatment producing uniformly good results. If the surgeon is willing to strive for perfection, the complications which arise from these injuries will be greatly minimized.

The methods of Owen Thomas, commonly called the Robert Jones method, are portrayed and described for the treatment of third degree external rotation fractures as, e.g. the trimalleolar with posterior dislocation of the foot where the principles of complete relaxation are obtained first by flexing the knee at 90° and then plantar flexing the foot before attempting the reduction of the posterior dislocation. The important factor to keep in mind is that the widest part of the astragalus is wider on its anterior surface than on its posterior. If dorsi-flexion of the ankle joint is attempted first, the proper alignment of the ankle mortis is missed. Likewise, the foot is aligned with the ankle joint and the point is emphasized that it is held in neutral position and not in eversion or inversion, which is a motion of the subastragaloid joint. This is often seen in fracture cases where an attempt has been made to do a closed reduction without remembering the anatomic mechanism of the joint.

The bibliography in the book is adequate and represents both continental and English authorities together with those articles published in the American literature.

Dr. Bonnin's latest book should be of value not only to the orthopedic surgeon but to any surgeon interested in trauma.

Arthur D. Devlin, M.D.

Functional Anatomy of the Limbs and Back. By W. Henry Hollinshead, Ph.D. Pp. 341. Philadelphia, W. B. Saunders Company, 1951. ($6.00)

This book illustrates the anatomy of the extremities and the back. It is prepared for the student of physical therapy and admirably correlates the functional aspects of various anatomic structures. The text is clearly and concisely written. The illustrations are all diagrammatic and very skillfully convey the thought desired. The section on the shoulder, for instance, is remarkably comprehensive for such a book, so limited in its scope. The anatomy of the muscles and their functional behaviors are taken up individually or in small groups, as rotators of the arm, flexors of the shoulder, et cetera. The result is a clear concept of the functional anatomy about the shoulder.

This book is a worthwhile contribution for students of physical therapy and for those interested in the locomotor apparatus.

Peter Cordasco, M.D.

Teaching the Retarded Child at Home. By Edna Davison Osterhout. Pp. 67. Duke University Press, Durham, N. C., 1951.

In this country there are about a million children too retarded to fit into our ordinary public schools. In New Jersey and probably in every state, the special public homes for these children are so overcrowded that it is usually many years before a child can be admitted. In the meantime, what? To let them roam the streets, or to lock them into their homes? Nearly all of these children *can* be taught something; often indeed, can be taught a good deal. The grade schools won't teach them because they won't enroll them. The state colonies place them on endless waiting lists. The only thing the parent can do is to undertake the labor of love inherent in teaching these children something useful, in making their day-by-day life less frustrating. Mrs. Osterhout has written this down-to-earth workbook which any intelligent parent can use as a teaching pattern. She shows how to make and use reading cards, how to teach as much arithmetic as the child can absorb, how to learn a lot by playing simple games. It all requires patience on the part of the teacher of course, but it can be done, and this is the most practical "how-to-do-it" volume this reviewer has seen in a long time.

Samuel Pollock, M.D.

Clinical Heart Disease. By Samuel A. Levine, M.D. 4th edition. 556 pages, 192 figures. Philadelphia, W. B. Saunders Company, 1951. ($7.75)

This edition of Dr. Levine's popular book is almost 100 pages longer than the previous edition appearing in 1946. During this five year period great advances have been made in cardiac surgery, in the use of antibiotics and anticoagulants in the treatment of various forms of heart disease, in the diagnostic value of cardiac catheterization and in the addition of unipolar leads in electrocardiographic interpretation. All this valuable knowledge has been incorporated in the new edition.

The book is meant to appeal to the general practitioner. Each of the 21 chapters is a brief monograph on the subject.

The book is rich in clinical knowledge and gives many practical hints in bedside diagnosis. In fact, the constant reference to simple clinical bedside methods in differential diagnosis is what will endear the book to the general practitioner. Controversial topics are avoided. Distinction between fact and surmise is emphasized. The absence of a bibliography in no way detracts from the book's value. The chapter on the clinical significance of the systolic murmur goes far in erasing much of the confusion from this puzzling subject. The same can be said for the chapters on the medicolegal aspects of heart disease and the factors concerning prognosis in heart disease.

Dr. Levine has drawn from his vast clinical experience and, with the inclusion of all the recent advances in this edition, he has made this a worth while addition to the general practitioner's library and a valuable text for the cardiologist as well.

Edward C. Klein, Jr., M.D.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV August, 1951 No. 8

PNEUMOPERITONEUM IN TB TREATMENT

Kirby S. Howlett, Jr., M.D., The NTA Bulletin, March, 1951.

The present era is replete with major innovations in the treatment of tuberculosis yet pneumoperitoneum continues to provoke the discussion and controversy usually accorded a newcomer. First employed for the treatment of intestinal tuberculosis, then largely abandoned, pneumoperitoneum was subsequently recommended by Banyai for treating pulmonary tuberculosis almost 20 years ago. Experience has not yet defined the legitimate place of pneumoperitoneum among our therapeutic resources. Therapeutic pneumoperitoneum is produced by the instillation of air through a needle into the abdominal cavity much as air is introduced into the chest by pneumothorax. This air fills the space which surrounds the abdominal organs and which is separated from the contents of the thoracic cavity by the diaphragm.

In pneumothorax the object is to produce relaxation of a tuberculous lung by the action of the air which surrounds it and allows the lung to collapse. In pneumoperitoneum, also, the object is relaxation of a diseased lung. Here, however, the air does not act directly upon the lung but acts upon the diaphragm, increasing the pressure beneath it which causes it to rise higher in the chest. This reduces the size of the thoracic space and the lungs retract to a smaller size and relaxation results.

The diaphragm is fixed at its periphery and is composed largely of a sheet of muscle covered on the chest side with pleura; on the abdomen side, with peritoneum. Its resistance to stretching can be markedly diminished if the muscle of the diaphragm is paralyzed by crushing the phrenic nerve in the corresponding side of the neck. Hence, phrenic paralysis is often used in combination with pneumoperitoneum. Even the unparalyzed diaphragm can usually be stretched sufficiently to relax the overlying lungs to some degree, although this varies considerably in different patients.

In discussing therapeutic pneumoperitoneum, comparisons with therapeutic pneumothorax inevitably arise. Neither involve the immediate trauma and shock of thoracoplasty and pulmonary resection. Hence, either pneumothorax or pneumoperitoneum can often be applied where bed rest alone is inadequate but where major surgery does not appear suitable.

Both pneumothorax and pneumoperitoneum can be administered with reasonable hope that the collapse effect produced by them will remain subject to the control of the physician and that the collapsed lung will return to its pre-treatment size and function when treatment is terminated. Unfortunately, this hope is all too often unfulfilled.

In the period from 1930 to 1940, pneumothorax was regarded as the best form of collapse therapy for the vast majority of patients. Thoracoplasty was rarely employed except after an unsuccessful pneumothorax and resection of a tuberculous lung was deemed too hazardous. Pneumothorax was, however, impossible in many patients because the diseased lung was adherent to the chest wall. Complications were frequent and some of these were more serious than the pulmonary tuberculosis itself. Certainly the over-all results from widespread use of pneumothorax were disappointing. This led some clinics to avoid pneu-

mothorax in all but exceptional circumstances; others continued to use it readily, but with much greater discrimination.

The decline in the use of pneumothorax has been accompanied by an increase in the use of pneumoperitoneum. Pneumoperitoneum enjoys the obvious advantages of a temporary and reversible collapse measure without many of the disadvantages of pneumothorax. Experience with pneumoperitoneum has demonstrated that, in competent hands, it is a relatively safe and well-tolerated procedure, and is capable of favorably influencing the course of pulmonary tuberculosis in many cases.

Up to this point, agreement among tuberculosis physicans is fairly uniform. Beyond this point, one encounters markedly divergent opinions and claims. The difficulty of evaluating a therapeutic procedure in a disease as protean in its manifestations and as variable in its behavior as pulmonary tuberculosis has long been recognized. Data from the prolonged observation of patients treated with pneumoperitoneum are still rather limited. Nevertheless, present evidence appears to justify certain conclusions.

The advantages of pneumoperitoneum are most apparent in the treatment of patients with acutely active tuberculosis who are too ill for immediate thoracoplasty or resection and in whom complications from pneumothorax are excessive. Pneumoperitoneum is especially valuable as a means of producing sufficient improvement to prepare such patients successfully for major surgery. Modern chemotherapy has lessened the need for pneumoperitoneum in this particular role but it is sometimes advantageous to use both pneumoperitoneum and chemotherapy.

Also, a temporary collapse measure is still widely preferred to major surgery for the treatment of patients in whom the extent of disease and of pulmonary damage is limited, although the increasing number of successful results from the localized resection of tuberculous lesions may radically alter this attitude. Pneumoperitoneum provides such a temporary collapse. The advantages of increasing the effectiveness of pneumoperitoneum by adding phrenic paralysis must be weighed against the permanent functional impairment which frequently results from the combination.

Neither pneumoperitoneum nor pneumothorax is likely to prove effective in patients with extensive destruction of lung tissue. When the function of a lobe or of a lung has already been impaired by destructive tuberculosis, the damage is irreversible. Therefore, unless the patient is a poor surgical risk, it is unwise to elect pneumoperitoneum for such lesions instead of the ultimately more effective and more durable thoracoplasty or resection.

While modern surgery and modern chemotherapy have reduced the indications for temporary collapse of a lung, the need has not been eliminated. Many physicians still prefer pneumothorax for this purpose, but pneumoperitoneum can be employed even when pleural adhesions prevent satisfactory collapse by pneumothorax. Moreover, pneumoperitoneum can be employed with safety where the hazards of pneumothorax are excessively high. The results from pneumoperitoneum are sometimes definitive; at other times it produces sufficient improvement to make definitive surgical therapy feasible. Finally, pneumoperitoneum may produce improvement—though not often a cure—in patients with extensive disease in both lungs and with poor respiratory function who are unable to tolerate any other form of collapse therapy or surgery. It is extremely important that the limitations of pneumoperitoneum be recognized. However, its value in the treatment of certain types of pulmonary tuberculosis has been clearly established.

The only broad-spectrum antibiotic available in concentrated drop-dose potency, Crystalline Terramycin Hydrochloride Oral Drops provide 200 mg. per cc.; 50 mg. in each 9 drops. Indicated in a wide range of infectious diseases, Terramycin Oral Drops are miscible with most foods, milk and fruit juices, affording optimal ease and simplicity in administration.

Supplied — *2.0 Gm. with 10 cc. of diluent, and calibrated dropper.*

ANTIBIOTIC DIVISION Pfizer **CHAS. PFIZER & CO., INC.,** *Brooklyn 6, N. Y.*

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET
SITUATIONS, ETC.

$3.00 for 25 words or less; additional words 5c each
CASH MUST ACCOMPANY ORDER
Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

PRACTICE WANTED — ORTHOPEDIST is desirous of obtaining a well-established orthopedic practice with good income. Will consider buying property. Write Box 8, c/o THE JOURNAL.

FOR RENT—Furnished office suite in Irvington, N. J. Ideally situated; excellent opportunity for general practitioner. All facilities furnished. Write Box M, c/o THE JOURNAL.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No Good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

OFFICE FOR RENT—Excellent location. Private street entrance. Doctor occupied for 30 years. Reasonable rent. Telephone Rutherford 2-1115 or Ru. 2-0626.

DOCTOR WANTED TO BUY this ideal residence and office. Excellent corner location, Orange, New Jersey. Nine room residence, 3 baths, plus doctor's suite with separate entrance. Oil heat, 2-car garage. Excellent parking and transportation. Doctor's death compels sale. Connolly & Connolly, 231 No. 18th Street, East Orange, N. J. OR 3-1261.

HOUSE FOR SALE—FOREST HILL, Newark—14 rooms, 3 baths, 2 lavatories, brick and steel construction, 2 car garage, ample parking space. Write Box 7, c/o THE JOURNAL.

MERCHANTVILLE—23 E. Maple Avenue. Corner property with lot 133′ by 187′. Now occupied by one of our oldest practicing physicians. In center of borough. Finest condition with beautiful modern kitchen and many other features including 2-car garage. Community could stand another physician easily because of the great expansion going on in this vicinity. Price $26,000. Inspection by appointment only. Write Box 7, c/o THE JOURNAL.

OPPORTUNITY — INTERNIST OR GENERAL PRACTITIONER. East Orange. Excellent location. Home, four room office, lavatory, practice. Seven room residence, 2 baths, 2 car garage. Orange 5-4664.

INFORMATION FOR CONTRIBUTORS

MANUSCRIPTS: Should be typewritten, double-spaced.

RIGHT TO REJECT, EDIT or ABBREVIATE any manuscript is reserved by the Publication Committee.

ILLUSTRATIONS will be supplied by the author. The Journal will furnish the necessary cuts and charge to the author the cost of preparing the dies. Estimates will be given when illustrations are submitted.

FORWARD all manuscripts and correspondence to:

The Journal of The Medical Society of New Jersey

315 WEST STATE STREET
TRENTON 8, N. J.

CHANGE OF ADDRESS

In the event of a change of address or failure to receive THE JOURNAL regularly fill out this coupon and mail at once to

THE MEDICAL SOCIETY OF NEW JERSEY, 315 W. State St., Trenton 8, N. J.

Change my address on mailing list

From _____

To _____

*Date*_____ *Signed*_____ M.D.

AN EFFECTIVE BARRIER

PARKE, DAVIS & COMPANY

BETWEEN

POLLEN AND PATIENT

When there's pollen in the air, and hay fever on a host of faces, your patients look to you to protect them. Fortunately, in BENADRYL you have a dependable barrier against the distressing symptoms of respiratory allergy.

Benadryl®

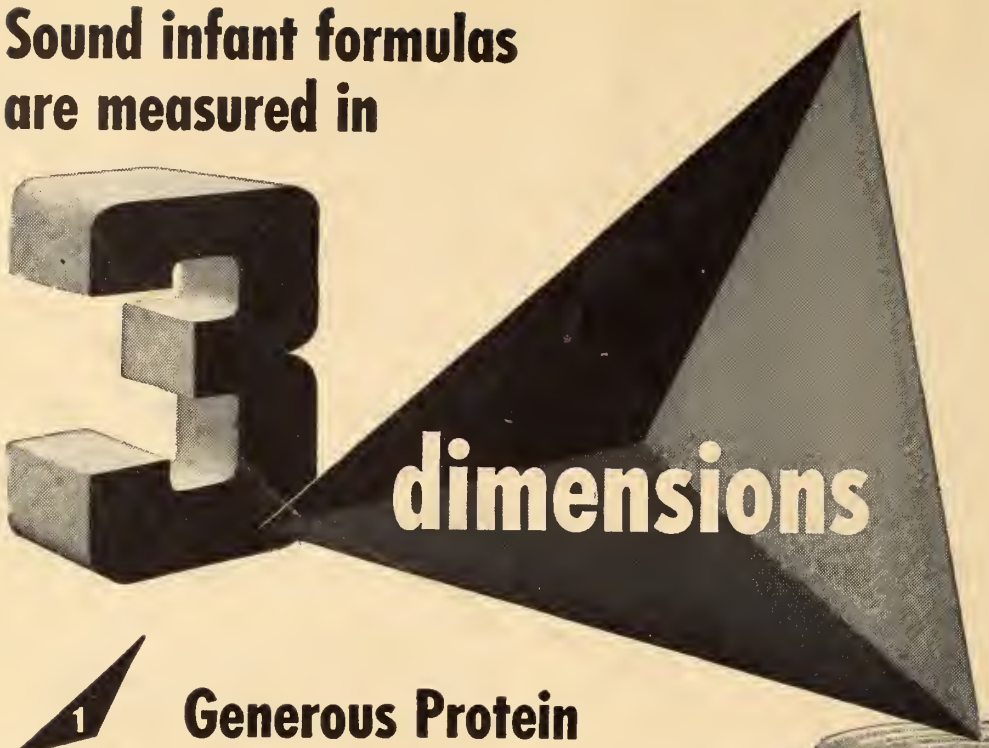
PIONEER

ANTIHISTAMINIC

For your convenience and ease of administration BENADRYL hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a wide variety of forms including Kapseals®, Capsules, Elixir and Steri-Vials®.

MEDICAMENTA VERA · P & CO.

Sound infant formulas are measured in



1 Generous Protein

2 Appropriate Fat Content

3 Adequate Carbohydrate

LACTUM, Mead's evaporated whole milk and Dextri-Maltose® formula, has these three dimensions—with a caloric distribution based on authoritative pediatric recommendations.

1. The milk *protein* of Lactum, supplying 16% of its total calories, provides generously for growth and development.
2. Milk *fat* contributes 34% of the calories.
3. *Carbohydrates* (lactose and Dextri-Maltose) supply 50% of the calories—to provide liberally for energy, permit proper metabolism of fat, and spare protein for tissue-building functions.

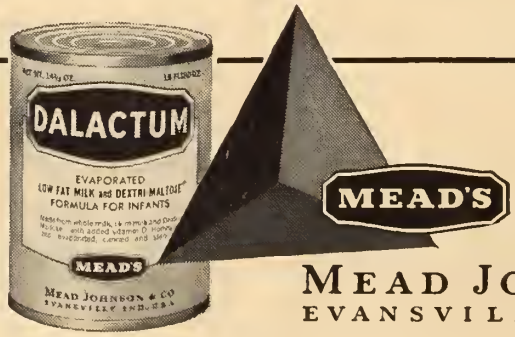
Cow's milk and Dextri-Maltose formulas with these approximate proportions have a background of forty years of successful clinical use.

and Lactum has a 4th dimension
... time-saving convenience

Lactum feedings are prepared simply by adding water. A 1:1 dilution provides 20 calories per fluid ounce.

For Premature and Full Term Infants with Low Fat Tolerance

DALACTUM, Mead's evaporated low fat milk and Dextri-Maltose formula, offers the same convenience as Lactum.



MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 9 SEPTEMBER, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 399 to 444

Roster of Officers and Committee Chairmen, Advertising page 3A

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications *for publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*..... Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, SIGURD W. JOHNSEN .....Passaic
President-Elect, HARROLD A. MURRAY .....Newark
First Vice-President, HENRY B. DECKER .....Camden
Second Vice-President, ELTON W. LANCE .....Rahway
Secretary, MARCUS H. GREIFINGER .....Newark
Treasurer, GEORGE J. YOUNG .....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953) .....Atlantic City
REUBEN L. SHARP, *Secretary* (1954) .....Camden
SIGURD W. JOHNSEN .....Passaic
HARROLD A. MURRAY .....Newark
HENRY B. DECKER .....Camden
ELTON W. LANCE .....Rahway
MARCUS H. GREIFINGER .....Newark
GEORGE J. YOUNG .....Morristown
ALDRICH C. CROWE .....Ocean City
WILLIAM F. COSTELLO (1953) .....Dover
WILLIAM C. WILENTZ (1953) .....Perth Amboy
JOSEPH G. COLEMAN (1953) .....Hamburg
L. SAMUEL SICA (1954) .....Trenton
DAVID W. GREEN (1954) .....Salem
J. LAWRENCE EVANS (1954) .....Woodcliff
ROYAL A. SCHAAF (1952) .....Newark
WILLIAM E. DODD (1952) ..... Beach Haven
C. BYRON BLAISDELL (1952) ..... Asbury Park

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1954)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....JACOB J. MANN, Perth Amboy (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1954)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1953) .....Hoboken
WILLIAM F. COSTELLO (1953) .....Dover
J. WALLACE HURFF (1952) .....Newark
DAVID B. ALLMAN (1952) .....Atlantic City
ELMER P. WEIGEL (1952) .....Plainfield
L. SAMUEL SICA (1952) .....Trenton

Alternates

ALBERT B. KUMP (1953) .....Bridgeton
WALTER F. PHELAN (1953) ..... Elizabeth
JOHN H. ROWLAND (1952) .....New Brunswick
ALDRICH C. CROWE (1952) .....Ocean City
HERSCHEL PETTIT (1952) .....Ocean City

COMMITTEES AND CHAIRMEN

Committee	*Chairman*
Finance and Budget	DAVID B. ALLMAN, Atlantic City
Medical Defense and Insurance	J. WALLACE HURFF, Newark
Publication	J. LAWRENCE EVANS, JR., Leonia
Scientific Work	
Honorary Membership	ROYAL A. SCHAAF, Newark
Woman's Auxiliary	LEWIS C. FRITTS, Somerville
Medical Education	FRANCIS M. CLARKE, New Brunswick
Annual Meeting	ASHER YAGUDA, Newark
Scientific Program	JOHANNES F. PESSEL, Trenton
Scientific Exhibit	WILLIAM W. HERSOHN, Margate City
Welfare	SAMUEL BLAUGRUND, Trenton
Legislation	C. BYRON BLAISDELL, Long Branch JOSEPH F. LONDRIGAN, *Executive Secretary*, Hoboken
Public Relations	JOSEPH E. MOTT, Paterson
Medical Practice	ALBERT B. KUMP, Bridgeton
Public Health	JOSEPH I. ECHIKSON, Newark
New Jersey Medical School	STUART Z. HAWKES, Newark
Adult Disease Control	NATHAN SWERN, Trenton
Cancer Control	WILLIAM O. WUESTER, Elizabeth
Cardio-Vascular Diseases	JEROME G. KAUFMAN, Newark
Chest Diseases	HARRY J. WHITE, Metuchen
Child Health	FREDERIC W. LATHROP, Plainfield
Conservation of Vision and Hearing	REINHOLD W. TERKUILE, Ridgewood
Maternal Welfare	JOHN D. PREECE, Trenton
Mental Hygiene	HARRISON F. ENGLISH, Trenton
Rehabilitation	H. EUGENE READING, Paterson
Rural Health	RALPH M. L. BUCHANAN, Phillipsburg
School Health	ELTON W. LANCE, Rahway
Venereal Disease Control	ROBERT L. MCKIERNAN, New Brunswick
Anesthesiology	EDWARD T. LAWLESS, Upper Montclair
General Practice	D. WARD SCANLAN, Atlantic City
Group Practice	CLARENCE B. WHIMS, Ventnor
Hospital Relationships	FLORENTINE M. HOFFMAN, New Brunswick
Laboratory Medicine	ASHER YAGUDA, Newark
Nursing	ANDREW C. RUOFF, Union City
Pharmaceutical Problems	JOHN L. VARRIANO, Jersey City
Physical Medicine	ELMER J. ELIAS, Trenton
Radiology	JOHN L. OLPP, Tenafly
Welfare Services	HAROLD C. COX, Hightstown
Workmen's Compensation and Industrial Health	RALPH A. YOUNG, Linden
Emergency Education Program	HENRY B. DECKER, Camden
Physician Resources	WILLIAM G. HERRMAN, Deal

Your Conscience Is Our Guide

We'd be the last people to urge you to spend money foolishly. In fact we've insisted for years that every woman should have a sensible cosmetic budget. The Luzier Service enables you to make the most of that budget . . . Somewhere between what you want, what you need and what you feel you can spend, your Luzier Cosmetic Consultant will help you find the perfect answer.

Luzier's Fine Cosmetics and Perfumes

Are Distributed in New Jersey by:

H. W. & DOROTHY CAMERON, Divisional Distributors

STATE OF NEW JERSEY

Park Drive Manor
Lincoln and Wissahicken Drive — Philadelphia, Pa.

DISTRICT DISTRIBUTORS

MRS. ALICE WINTERS
Cologne, New Jersey
Phone Egg Harbor 687-J12

MISS ELSIE JESSUP
220 Dickinson Road
Chestnut Ridge,
Glassboro, New Jersey

ASSISTANT DISTRICT DISTRIBUTORS

MRS. HAZEL WILSON
827 Melrose Avenue
Trenton, New Jersey
Phone Tr. 5-0067

MRS. PRISCILLA MILLER
R. F. D. 3—Box 429
New Brunswick, New Jersey
Phone Millstone 8-102

New in Hypertension

TABLETS

DIVASOR

(MARA)

- HESPERIDIN METHYL CHALCONE—20 mg.

  The most potent of the flavone rutinosides. It provides five times the activity of Hesperidin and pharmacologically shows remarkable hypotensive action, prolonged but apparently safe.

- MANNITOL HEXANITRATE—30 mg.

  Provides steady, moderate and prolonged vasodilator action.

- HOMOTROPINE METHYL BROMIDE—1 mg.

  Relieves distressing gastro-intestinal symptoms which may aggravate the hypertensive syndrome.

- PHENOBARBITAL—15 mg.

  Allays the anxiety and tension which are so often present in the hypertensive patient.

- ASCORBIC ACID—60 mg.

  Obviates sub-clinical Ascorbic Acid deficiencies and aids in the restoration of normal capillary fragility and permeability.

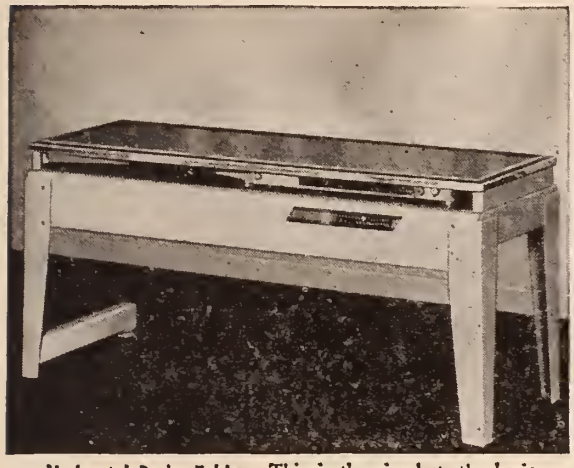
Moderate ℞ cost

Samples and Literature on request

The Mara Laboratories, Inc.

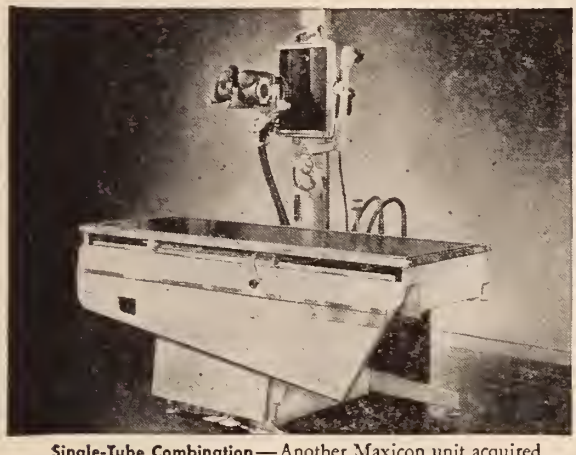
HARRISON NEW JERSEY

YOU WON'T OUTGROW THESE X-RAY UNITS!

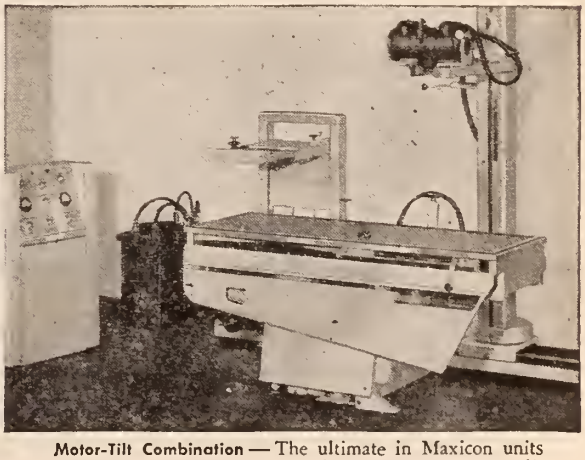


Horizontal Bucky Table — This is the simplest, the basic Maxicon unit. Practical for use in straight radiography, it can later be upgraded to provide one of many units to expand your facilities.

New Dual-Position Table — One of your many choices may be this unit for radiography and fluoroscopy with either a 25 or 100 ma generator. Its "tip-up" top permits vertical as well as horizontal patient positioning.



Single-Tube Combination — Another Maxicon unit acquired by augmenting the basic table. The table-mounted tube stand is a part of the table — angulates with it — is the only one that permits straight-line tube positioning. Instantly converted from radiography to fluoroscopy.



Motor-Tilt Combination — The ultimate in Maxicon units gives you foot-pedal controlled tilting. Complete radiographic and fluoroscopic service is afforded by the independent tube stand, fluoroscopic carriage and screen unit, two rotating anode tubes and a 200-ma generating unit.

The MAXICON provides just the x-ray facility required ...unit by unit as needed

There's small chance that your professional progress will obsolete your x-ray apparatus — *if* it's a Maxicon. The popular component construction of this exceptional line of diagnostic equipment lets your x-ray facilities grow to meet changing needs. With the Maxicon, it is possible to cover the complete range of diagnostic x-ray apparatus from the horizontal x-ray table to the 200-ma, two-tube, motor-driven combination unit.

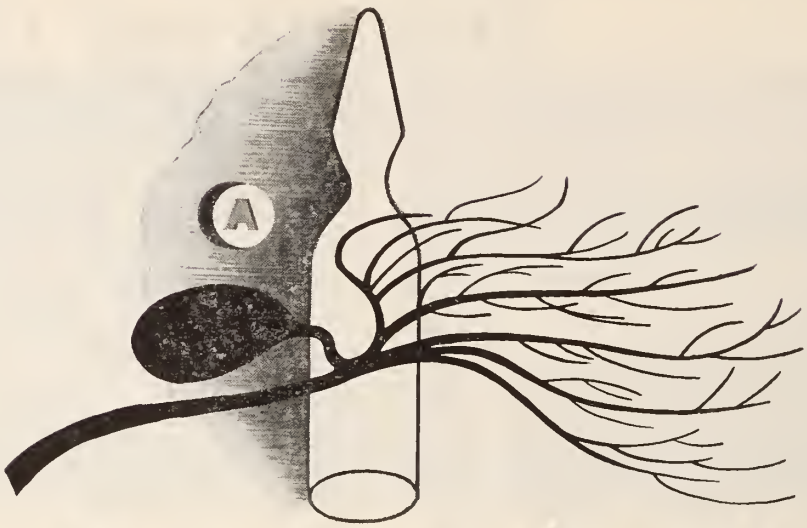
Get full details about the remarkable flexibility of the Maxicon. Ask for literature on the units illustrated or the complete Maxicon line. See your GE representative, or write:

GENERAL ELECTRIC

Direct Factory Branches:

NEWARK — 10 Third Street

PHILADELPHIA — 1624 Hunting Park Avenue



in biliary tract disorders

Hydrocholeresis with *Decholin* and *Decholin Sodium* produces a gentle lavage of the biliary tree. Copious, fluid bile flushes away mucus, pus and thickened bile and re-establishes normal drainage.

for best results

Hydrocholeretic therapy should be extended through the optimal treatment period. An *average* dose of *Decholin* is 1 or 2 tablets three times daily for four to six weeks Prescription of 100 tablets is recommended for maximum efficacy and economy. The course may be repeated after an interval of one or two weeks if desired. For more rapid and intensive hydrocholeresis, therapy may be initiated with *Decholin Sodium.*

DECHOLIN

Decholin tablets (brand of dehydrocholic acid) of 3¾ gr. (0.25 Gm.), in bottles of 100, 500, 1,000 and 5,000.

Decholin Sodium (brand of sodium dehydrocholate) is supplied in a 20% solution for intravenous administration. 3 cc., 5 cc. and 10 cc. ampuls – boxes of 3, 20 and 100.

Decholin and *Decholin Sodium*, trademarks reg.

AMES COMPANY, INC · ELKHART, INDIANA

Ames Company of Canada, Ltd., Toronto

The problem of

Intestinal Stasis

The physician finds in treating intestinal stasis that the patient has usually "doctored" himself for years with cathartics or enemas; his bowel habits may be bad; he is often convinced that not constipation but "something else" is wrong.

Despite these handicaps to therapy, the patient can be convinced that his condition is correctible, even where it has existed for years. But first he must accept the idea that he is being offered neither a "quick cure" nor mere temporary relief; that the goal of therapy is *correction.*

As corrective therapy, Cellothyl affords special advantage for it acts to rectify several common, often co-existing factors:

1. **bulK deficiency** . . . *by providing adequate bulk of proper consistency*
2. **hypomotility** . . . *by encouraging peristalsis through gentle mechanical stimulation*
3. **inspissation** . . . *by retaining water*
4. **dyschezia** . . . *by assuring soft, moist, easily passed stools.*

Normal, well-formed stools usually begin to appear in 3 to 4 days. However, bowel function improves markedly only when therapy is continued until Cellothyl's peristalsis-stimulating bulk achieves intestinal regularity.

Where an anticonstipation regimen is required, a simplified program is available in a small leaflet entitled "7 Rules for 7 Days". After outlining the faulty habits which cause intestinal dysfunction—poor diet, delayed defecation, etc.—it presents 7 simple rules to be followed for at least 7 days. To obtain copies: write "7 Rules" on a prescription blank and forward to Chilcott Laboratories, Morris Plains, New Jersey.

Cellothyl® BRAND OF METHYLCELLULOSE ESPECIALLY PREPARED BY THE CHILCOTT PROCESS

Available: Cellothyl Tablets *(0.5 Gram) in bottles of 100, 500 and 5000.*
Cellothyl Granules, *for pediatric use, in bottles of 25 and 100 Grams.*

CHILCOTT *Laboratories* DIVISION OF The Maltine Company
MORRIS PLAINS, NEW JERSEY

BELIEVE IN YOURSELF!

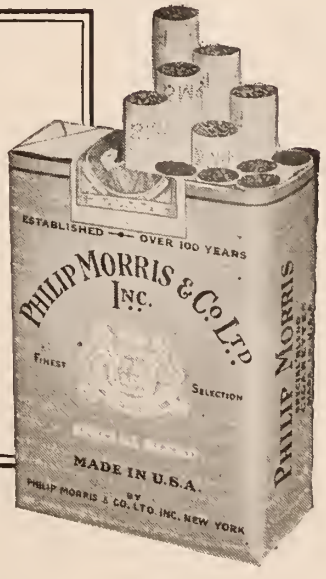
Doctor, you probably have read a great deal of cigarette advertising with all sorts of claims.

So we suggest: make this simple test...

Take a PHILIP MORRIS—and *any* other cigarette. Then,

1. Light up either one. Take a puff—don't inhale—and s-l-o-w-l-y let the smoke come through your nose.

2. Now do exactly the same thing with the other cigarette.



Then, Doctor, BELIEVE IN YOURSELF!

PHILIP MORRIS

Philip Morris & Co. Ltd., Inc.
100 Park Avenue, New York 17, N. Y.

for a sound mind and healthy body

plenty of citrus fruit

Diets restricted because of allergies, diabetes, ulcers, etc. are frequently low in vitamin C[1,3,5]—thus adding a nutritive deficiency to the existing condition.[8] In gastric and duodenal ulcers,[2] a subscorbutic state is particularly serious because it interferes with collagen formation and capillary integrity.[3] Florida orange juice alone—or with milk to prevent a possible "burning" sensation—is not only a palatable source of vitamin C, but a quick means for providing an energizing "lift"[5,7] produced by the easily assimilable fruit sugars.[6] Fortunately Florida orange juice is virtually non-allergenic.[4]

FLORIDA CITRUS COMMISSION · LAKELAND, FLORIDA

Citrus fruits—among the richest known sources of vitamin C—also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.

REFERENCES:

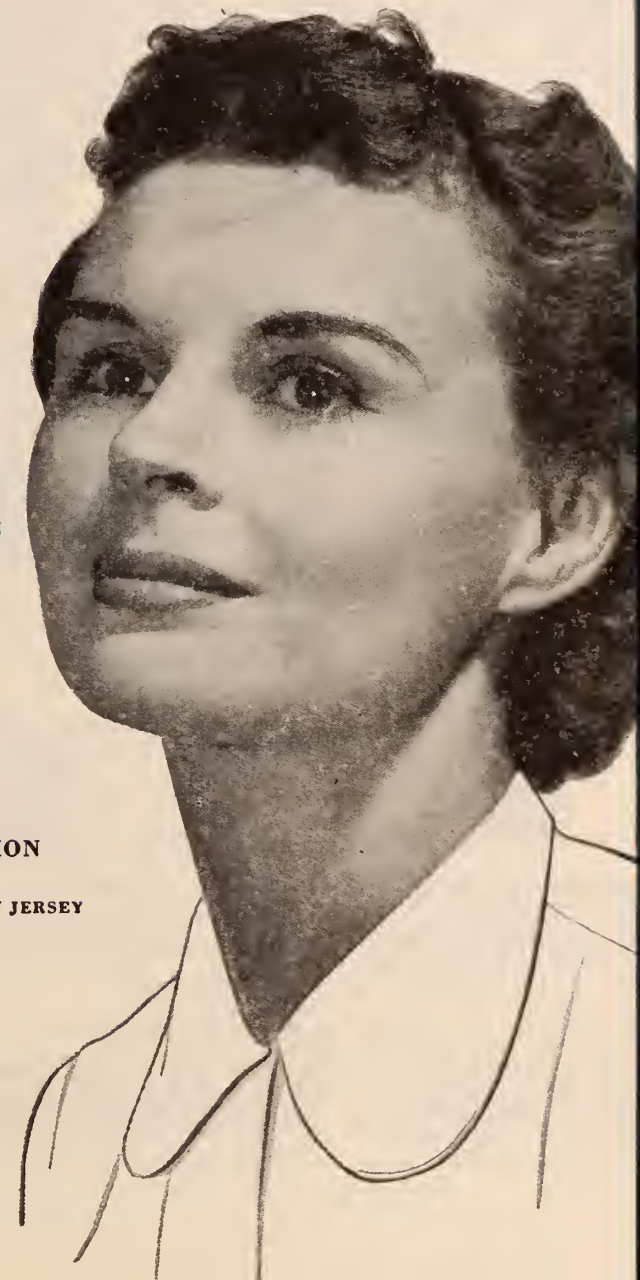
1. Bicknell, F. and Prescott, F.: The Vitamins in Medicine, 2nd ed., Heinemann, 1946.
2. Dunnigan, W. M. et al: Ohio J. Sc. 44:123, 1944.
3. Ivy, A. C. et al: Peptic Ulcer, Blakiston, 1950.
4. Jeans, P. C. and Marriott, W. McK.: Infant Nutrition, Mosby, 1947.
5. Jolliffe, N. et al, ed.: Clinical Nutrition, P. B. Hoeber, 1950.
6. McLester, J. S.: Nutrition and Diet in Health & Disease, 4th ed., Saunders, 1944.
7. Sherman, H. C.: Chemistry of Food and Nutrition, 7th ed., Macmillan, 1946.
8. Spies, T. D.: J.A.M.A. 122:497, 1943.

FLORIDA

Oranges · Grapefruit
Tangerines

An Unsurpassed Estrogen Therapy

Small dosage makes ESTINYL inimitable among orally effective estrogens. As little as *two hundredths of a milligram daily* relieves menopausal symptoms and produces a sense of well-being obtainable only with larger doses of other estrogens.



ESTINYL

ESTINYL®

(ethinyl estradiol-Schering)

Available for treatment of menopause and other estrogen deficiency states, in tablets of 0.02, 0.05 and 0.5 mg.

Schering CORPORATION

BLOOMFIELD • NEW JERSEY

CARTOSE®
Mixed Carbohydrates in Easy-to-Use Liquid Form

Compatible with all milk formulas • Instantly soluble
No gumming • No nipple clogging • No caking
BOTTLES OF 1 PINT

Write for formula blanks

CARTOSE—widely prescribed liquid carbohydrate milk supplement—provides the advantage of "spaced" steady absorption in infant feeding.

Containing a carefully proportioned mixture of dextrins, maltose and dextrose—each having a different rate of assimilation—Cartose tends to minimize fermentation, colic, diarrhea or digestive disturbance.

DRISDOL®

Pure Crystalline Vitamin D_2 in Propylene Glycol • Diffuses perfectly
Tasteless . . . Odorless . . . Nonallergenic

Now also milk diffusible **DRISDOL with VITAMIN A**

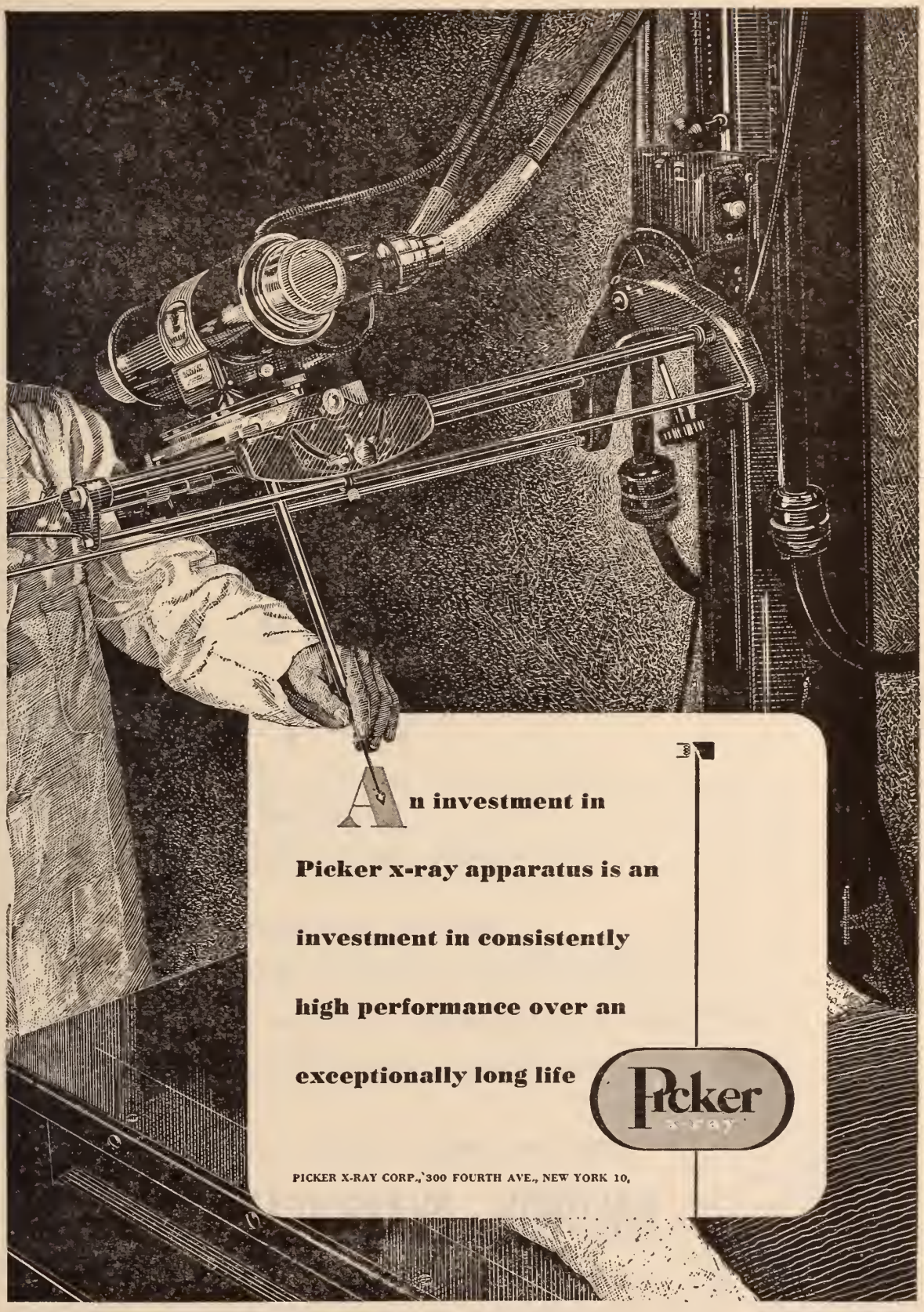
Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

Cartose and Drisdol, trademarks reg. U. S. & Canada

In Soft-tissue Infections: "Terramycin was used in [101] soft-tissue infections and proved to be of great value... Where the terramycin was used intravenously with the proper diluent, no instance of chemical phlebitis occurred....Where surgical intervention was used in conjunction with terramycin, the decrease in morbidity was marked and noteworthy ...That terramycin has a wide and useful area of great value in the treatment of soft-tissue infections is beyond question."

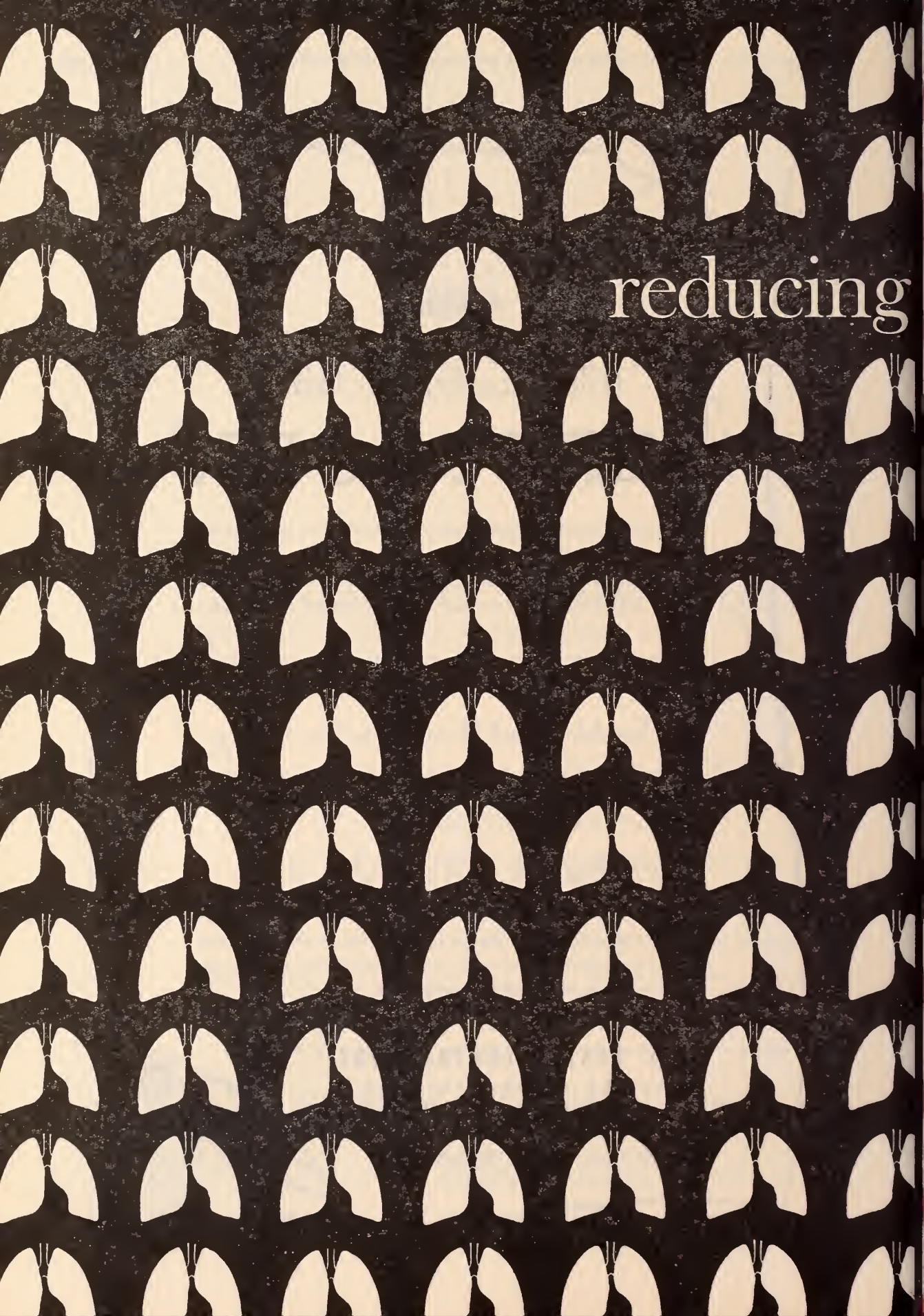
Wright, L. T., et al.: Antibiotics and Chemotherapy 1:165 (June) 1951.

ANTIBIOTIC DIVISION Pfizer



NEWARK 2 *(Northern)* N. J., 972 Broad Street
LINCOLN PARK, N. J., Sewanois Avenue
MAPLEWOOD, N. J., 17 Van Ness Court

PHILADELPHIA 4 *(Southern)* PA., 103 S. 34 Street
MATAWAN, N. J., 54 Edgemere Drive
NUTLEY, N. J., 226 Hillside Avenue


reducing

pulmonary embolism

"No case of post-operative death from pulmonary embolism" occurred in a study of heparinization[1] during a 9-year period in a hospital with 30,650 admissions. With early diagnosis, early ambulation and heparin treatment of thrombo-embolism, mortality was reduced from 18 per cent in a control series to 0.4 per cent.[1] Such advances in the control of thrombo-embolic phenomena have been made possible by the pioneering efforts of investigators in many centers of medical research.

Upjohn research has contributed new and advanced preparations. A single, deep, subcutaneous injection of Depo*-Heparin (30,000 to 40,000 U.S.P. units—approximately 300 to 400 mg.) "will give a lengthened coagulation time of 2 to 4 times normal for about 24 hours."[2]

For practicable and prolonged thrombo-embolic control:

℞ Depo-Heparin

Each cc. contains		
	Heparin Sodium	20,000 U.S.P. units *(Approximately 200 mg.)*
	Gelatin	180 mg.
	Dextrose, Anhydrous	80 mg.
	Water for Injection	q.s.

Preserved with sodium ethyl mercuri thiosalicylate 1:10,000

Supplied with sterile disposable 1 cc. cartridge syringe.

1. Bauer, Gunnar: Nine Years' Experience with Heparin in Acute Venous Thrombosis. Angiology, Vol. 1, No. 2, (Apr.) 1950.

2. Smiles, William J.: Long Acting Heparin Preparation: A Useful Adjunct in Anticoagulant Therapy. U. S. Armed Forces Med. J., Vol. II, No. 1 (Jan.) 1951.

Upjohn Research *for Medicine . . . Produced with care . . . Designed for health*

Volume 48
Number 9

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

Published Monthly Since 1904

Whole Number of Issues 565

Under the Direction of the
Committee on Publication
J. Lawrence Evans, Jr., M.D.,
Chairman

Henry A. Davidson, M.D., Editor

Miriam N. Armstrong,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of The Journal every month.

Vol. 48, No. 9 September, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE

The privilege of communicating directly, through the pages of our Journal, with over five thousand physicians comprising the membership of The Medical Society of New Jersey, is an opportunity imposing a great responsibility on your president. I am, however, sustained by the knowledge that there are many of you who are serving on committees, and I feel that, with the officers of the Society, we are all working together to further the cause of organized medicine in New Jersey. It is my hope therefore, through the medium of these monthly messages to bring to your attention collectively what seems to me the most important problems confronting us.

One such problem is that of our hospital relationships. It has been the policy of The Medical Society of New Jersey to affirm that the practice of medicine in all its branches (including radiology, anesthesiology, physical therapy, and pathology) be limited to physicians, and that hospitals or other corporate bodies violate the Medical Practice Act when they engage in any of these fields. We have had the opinion of competent counsel that the practice of medicine by a corporation is a direct violation of the law. We have notified all the hospitals in the state, of our stand. The New Jersey Hospital Association have given us their assurance that they are of the same mind in this matter; yet daily violations of this policy occur.

A new hospital is in the process of formation in Passaic County, financed privately, having no ward services and no nursing school. A charter has been issued to this institution as a non-profit hospital. Furthermore, it has been publicly stated, that this hospital will pay interest on the capital, and repay the investors in twenty years, and that there-

after, any excess money will be used for research purposes. It has also been publicly stated that the costs to the patient will be lower than those charged by hospitals in this area.

These questions suggest themselves in relation to this project:

First; if a hospital can be organized by private capital—on a tax free investment basis, and can render services to the public at a lower rate than charitable institutions supported by the public, then what is wrong with our present hospitals?

Second; if this hospital can operate and render services at lower cost, how does it propose to do so?

Third; is it possible that this hospital will use fees from medical services to achieve its purpose?

The Passaic County Medical Society has appointed a committee to investigate the matter, and we hope to have more facts on the project to present in the near future.

SIGURD W. JOHNSEN, M.D.

BOOK REVIEWS IN THE JOURNAL

This JOURNAL has an exceptionally large book review section for a state periodical. In the questionnaire last May, we asked whether members wanted more or fewer book reviews. Of the 1215 who replied, only 121 wanted fewer reviews, and only 115 wanted more. From which we conclude that our book review section is about the right size.

Of the 1215 respondents, five took the trouble to write in their reasons for wanting the book review section reduced. One said it was a "useless" section. Two said that the J.A.M.A. covers medical books well enough, to make state journal coverage unnecessary. One said (with astonishing naivete, we think) that the publishers send doctors all the information they need about new medical books. And one thought that the reviewer was seldom in position to appraise the book submitted to him. To that last comment we can take vigorous exception at once. About one half of the reviews are accomplished through the Academy of Medicine of Northern New Jersey, whose library committee is careful about selecting reviewers. They send these books to recognized specialists in the field. The rest of the books are cleared through the editorial office of The Medical Society of New Jersey, and we too are meticulous in selecting as a reviewer only a specialist in the subject matter of the book; in appropriate cases, a general practitioner of mature judgment is asked to review books oriented to general practitioners.

The questionnaire returns reflect general satisfaction with our large book review department. Perhaps some of our reviewers are overawed by the fame of the authors, and write too glowingly of a book's merits. All book review columns in all kinds of journals suffer from this defect, except in publications staffed with professional reviewers. But by and large our reviews are honest appraisals. We have the reviewer sign his name, so that any reader is free to modify his interpretation of the review according to his judgment of the reviewer. We know of members who turn to the book review section before reading any part of the JOURNAL. The publishers appreciate the space we give, and they have indicated their satisfaction even though some of them have not fared well in terms of reviewers' criticisms. And, as indicated in the questionnaire return, our membership is satisfied that a large book section should be an organic part of a journal representing any profession that calls itself "learned".

ORIGINAL ARTICLES

SYMPTOMS FOLLOWING BILIARY SURGERY†

AN APPRAISAL OF THEIR ETIOLOGY AND CORRECTION *

EARL J. HALLIGAN, M.D., LOUIS L. PERKEL, M.D., J. KENNETH CATLAW, M.D., and LEONARD TROAST, M.D., Jersey City, N. J.

Symptoms following biliary surgery are not uncommon. They vary from 5 per cent to 73 per cent depending on the type of operation and the condition for which it was done. Pain, jaundice, fever, chill, sweating and digestive disturbances, either alone or in combination, are the most frequent complaints. Loss of weight, pruritis or diarrhea also may occur.

1. *Pain* varies from a vague and moderate discomfort to the severe pain of biliary colic.
2. *Jaundice* when it occurs, varies. It may be mild or severe, remittent or persistent.
3. *Fever,* with or without chills and sweats, also varies in degree or it may be absent.
4. *"Dyspepsia"* is often of the persistent gaseous type with post-prandial bloating and discomfort aggravated by heavy food or fatty meals. Nausea and vomiting may be present.

Laboratory findings depend on the degree of infection, and obstruction of the ducts, plus damage to the liver and other organs.

In appraising symptoms following biliary surgery, in order to determine their cause and the treatment, one should carefully review their complaints prior to operation and if possible, the operative procedure, what the findings were and the postoperative course.

Cholecystectomy, with or without exploration of the common duct, is the most frequent operation on the biliary system. Poor results can be reduced by more accurate diagnosis and a more careful selection of cases plus a meticulous operative technic. Half of the failures following cholecystectomy are likely to be due to some other lesion rather than that of the biliary tract, such as esophageal hiatus hernia, duodenal ulcer, spastic colitis, coronary pathology or disease of the spine.

In duodenal ulcer in the second portion, spastic colitis and in pregnancy, one may even get an absent gall bladder shadow. All patients should be evaluated by a careful history, physical examination, x-ray of the esophagus, stomach, duodenum and colon. The mere finding of gall stones on x-ray does not mean they are the cause of the patient's trouble. One should have the typical syndrome associated with biliary colic.

Excellent results are obtained in 95 per cent of cholecystectomies if biliary colic has been present. If, in addition, the patient has residual tenderness in the gall bladder region plus a palpable mass, the outlook for complete relief is almost assured. Of course in the chronic case, x-ray in addition may show stones or loss of gall bladder function. Persistent intractable "dyspepsia" with confirmatory x-rays of the gall bladder disease, particularly in the presence of stones, gives excellent results but all other conditions must be excluded.

Emphasis has been placed on calculous cholecystitis as the chief indication for cholecystectomy but one also has to consider the non-calculous gall bladder, particularly those showing non-function with the dye test. Here one must be particularly careful because the stoneless cases show a greater morbidity, higher postoperative mortality with only half as many cures. If the history is fairly characteristic and all other possibilities ruled out, the dye test positive and at operation no other cause is found, the gall bladder should be removed because it eliminates the possibility of future trouble such as acute cholecystitis, formation of stones or doubt as to the cause of later symptoms if it is left in. In all cases of non-calculous cholecystitis, the common duct should be explored even though jaundice or fever has not occurred, as jaundice occurs

* From the Services of St. Francis Hospital and Jersey City Medical Center.

† Read May 15, 1951, Annual Meeting, The Medical Society of New Jersey.

in only 61 per cent, chills and fever in only 36 per cent of the cases. The more pathologic the non-calculous gall bladder, the greater the possibility of a good result.

Recurrence of symptoms is likely to take place after cholecystostomy. Fifty per cent may be comfortable for a few years but then revert to their former condition and become worse. Stones may reform or have been overlooked at the original operation. If obstruction of the cystic duct is present due to stone, stricture or kinking, the biliary fistula will persist.

Cholecystostomy is done in less than one per cent of the cases (either because of the poor condition of the patient, such as severe cardiac disease or diabetes, or technical difficulties on rare occasions). If possible, cholecystostomy should always be followed by cholecystectomy within two months.

Carcinoma of the gall bladder may occur following cholecystostomy particularly if stones have been present. This condition is rather rare but it does occur and therefore should be considered.

CASE ONE

A sixty year old white female admitted to the hospital with a history of cholecystostomy six years prior for acute cholecystitis. Now suffering from severe pain in the right upper quadrant, chills, fever, jaundice and palpable tender enlarged gall bladder. After several days the temperature, pain, tenderness and jaundice receded and the gall bladder became impalpable. She had had no weight loss. Several weeks later the same episode recurred and again subsided. During the next free interval she was operated upon and the gall bladder plus a generous section of the neighboring liver removed. Gross diagnosis: carcinoma of the gall bladder confirmed by histologic examination.

Symptoms of carcinoma of the gall bladder may appear insidiously. Two-thirds of these patients are in good health until six months before admission to the hospital; others have a history of biliary colic and jaundice for a long period of time, then both become constant and severe.

Weight loss of 10 to 50 pounds occurs about a month before admission. Jaundice is late in appearance as a rule. The pain is severe in two-thirds of the cases. The gall bladder is likely to be tender and a mass is often palpable beneath the liver. Anoxemia, vomiting, ascites, emaciation and hemorrhage may occur. The outlook is gloomy in spite of operation.

Stones in the common duct, sometimes recurrent and more commonly overlooked at the previous operation, are a frequent cause of persisting symptoms following biliary surgery. The common duct may not have been explored or it may have been explored and the stones missed. This is always possible because with a large dilated duct, no matter how much one palpates, probes or flushes out the duct, the stones may be elusive and not found or they may be high up in the hepatic ducts and drop down later. Usually stones that have been missed are faceted and are composed either of cholesterin or of cholesterin with calcium. Those formed in the common duct are most often of calcium bilirubin. In one of our cases stones formed in the common duct, one might say under our very eyes.

CASE TWO

This fifty year old white woman was admitted to the hospital with a prolonged history of repeated biliary colic, jaundice, chills and fever of several months' duration. Her temperature in the hospital spiked to 108 degrees. After careful preoperative treatment, a cholecystectomy and choledochostomy were done. Because of the large dilatation of the duct, the marked enlargement of the liver and the severity of the infection, it was decided to leave the "T" tube in for prolonged drainage. Choledochograms showed the following:

August 4—Examination after the introduction of lipiodol into the "T" tube, demonstrates patency at the ampulla with a moderate degree of contrast medium in the duodenum and duodeno-jejunal angle. A moderate degree of dilatation has been noted in the common duct and there is also evidence of dilatation in the right and left hepatic ducts, in so far as they were visualized. A small sac-like dilatation has been noted at the level of the ampulla.

September 22—Continued examination of the biliary tract after the introduction of lipiodol into the "T" tube demonstrates patency at the ampulla with evidence of contrast medium in the duodenum and first part of the jejunum. A moderate degree of dilatation has been noted in the common duct with evidence of a small filling defect which may be attributed to a stone or debris. The left hepatic duct was moderately dilated. The right hepatic duct was not visualized.

Evidently a stone was forming.

Cultures from the drainage showed colon staphylococci and some mixed organism. Colon bacillus seems to be the worst offender and most difficult to get rid of in the "stone formers". Antibiotics and chemotherapy were used locally, orally and parenterally but failed to eliminate the infection until we removed the remaining stones.

September 30—Further examination of the biliary tract after an interval of seven days demonstrates patency of the common duct with the contrast medium in the duodenum, shortly after its introduction. The common duct is moderately dilated. A few non-opaque areas have been noted in the region corresponding to the right hepatic duct, the appearance of which has not changed appreciably in this interval.

Ether and alcohol were injected every third day and warm olive oil the other days with the following results:

January 9—In the preliminary examination a small amount of lipiodol from the previous examination was visible in the right upper quadrant, probably in the region of the gall bladder bed and in the examination made immediately after injection, the contrast medium passed into the duodenum and the remaining portions were visible in the common, cystic and hepatic ducts. Examinations made after the injection of the morphine sulphate and additional amounts of the contrast medium again demonstrate the common duct which is dilated. The hepatic ducts have not been well visualized in this examination as in the previous studies. The left hepatic duct is more completely outlined and appeared dilated and evidence indicating an area of incomplete filling due to debris or gall stone formation was noted about the junction of the hepatic and common ducts.

February 8—The preliminary survey film again demonstrates the irregular collection of contrast medium in the region of the gall bladder bed. It presents essentially the same appearance as in the previous examination. Further examination made after introduction of the contrast medium again demonstrates dilatation in the common duct and the hepatic radicals. The sphincter is patent and the solution passed into the duodenum without appreciable delay. This examination again demonstrates dilatation of the common and hepatic ducts. The cup shaped area of incomplete filling has again been noted at about the junction of the common and hepatic ducts that has not changed appreciably in this interval.

The tube was removed in order to allow the stones to drop down into the common duct, a catheter was inserted down the fistulous tract and ether and alcohol injected daily; the "Best" treatment of flushing out the duct was used. However this was unsuccessful as shown by the next cholangiogram:

February 14—Continued examination of the biliary tract after removal of the "T" tube shows a marked degree of dilatation in the common duct as well as in the right and left hepatic ducts. The large non-opaque body that evidently represents a stone moved downward into the common duct and several other non-opaque bodies have been noted in the common duct as well as in the hepatic ducts. The opaque medium passed into the duodenum without appreciable delay.

The patient was operated upon, the stones removed and a "T" tube inserted.

March 9—Examination after the introduction of the contrast medium into the "T" tube visualized most of the injected material in the duodenum. No appreciable amounts of the injected material are visualized in the common or hepatic ducts.

The "T" tube was removed in two weeks. Follow-up now, three years later, shows patient in good health and symptom free.

Stones (overlooked or recurrent) are to be suspected when pain, particularly colic, jaundice, chills, fever and marked intractable "dyspepsia" recur. This is corroborated by laboratory findings of increased serum bilirubin or an icteric index after the attack. Duodenal drainage, if technically well done, particularly if the location of the tube is checked by fluoroscopy, may reveal cholesterin crystals, calcium bilirubin, white blood cells and sheets of epithelial cells which almost definitely indicate stone and infection.

The prevention of symptoms due to the overlooked stones consists in exploring the common duct at the time of cholecystectomy particularly if the patient has had a long history of frequent repeated colics (sometimes as often as six to ten times a day) and jaundice. If at operation one finds many small stones in the gall bladder (especially if a small stone in the cystic duct is present) an enlarged dilated cystic duct or small fibrosed (the "peanut gall bladder") gall bladder, the last is almost pathognomonic of common duct pathology according to Cattell.

Again, if the stones are palpable, a duct is dilated or thickened or both, or if turbid flakey bile is aspirated from the duct, or the pancreas is swollen, edematous or fibrosed, the duct must be opened and investigated.

Postoperative choledochograms should be done as a routine and if remaining stones are found, treated by injection of ether, or, ether and alcohol, preceded by the injection of local anesthetic every few days. They are put on the "Best" treatment at the same time. The results are often good if the stone or stones do not contain too much calcium. If this treatment is unsuccessful, the "T" tube is left in for three months until the inflammatory reaction has subsided and then the stones are removed.

All cases of common duct stones either recurrent or overlooked, should be removed at the secondary operation, because infection and

obstruction are always dangerous to life. Lately in these, we have been doing choledochograms at the operating table, injecting the contrast medium in the common duct while the film is being developed. We have reversed our previous opinion on immediate cholangiography. We formerly thought it cumbersome, time consuming and fraught with the possibility of contaminating the field. We now find it is particularly valuable in the secondary operation on the ducts and can be done rather rapidly and expeditiously. In exploring the common duct, particular attention must be directed to the sphincter of Oddi and if probes do not pass as freely into the duodenum, olive tip dilators (Bakes) up to ten millimeters should be used. If the sphincter is fibrosed, transduodenal exploration of the ampulla and section of the sphincter under direct vision should be done so as to avoid recurrence of stones or recurrent attacks of pancreatitis. Ordinarily we remove the "T" tube or catheter in twelve to fourteen days if the choledochogram has been satisfactory, but in all cases of fibrosis of the sphincter, the tube with a long arm going into the duodenum should be used until scar contracture following section is complete. A minimum of one year is best. The "T" tube should be irrigated twice daily with saline or sodium bicarbonate solution and dehydrocholic acid given three or four times daily by mouth.

Another cause of symptoms following biliary surgery is a remnant of the cystic duct that has been left behind. The stump may or may not contain stones but all show definite inflammatory changes. Often this stump dilates and resembles a miniature gall bladder (the "reformed gall bladder"). Symptoms vary from the same digestive disturbances prior to operation to the colic, jaundice and typical Charcot fever and occurs from one month to seventeen years after operation. Sometimes x-ray will show the stones in the remnant of the cystic duct. Gray and Sharpe reported 44 cases; 18 with stones and 26 without stones. We have had 8 cases—4 with stones and 4 without stones. Two were diagnosed by x-ray prior to operation. All have been relieved. None had stones in the common duct at secondary operation. The explanation of symptoms due to the remnant of the duct is controversial. Beye thought the dilatation and reformation of the miniature gall bladder was important; Ivy and Sandbloom and others believed it due to a disturbance of the reciprocal innervation of the duct and sphincter. Womack and Arder referred to the neuroma-like scarring associated with the remnant and MacDonald has stressed the fact that it is a focus of infection in the ducts.

No matter what the mechanism is, the fact remains, the cystic duct should be amputated at the junction with the common duct at the primary operation. In the secondary operation it should be diligently sought and removed if present, to eliminate a cause of future symptoms.

Adhesions of the duodenum to the liver and gall bladder bed may cause persistence of symptoms after cholecystectomy. The symptoms usually vary from a dull dragging pain in the epigastrium and right upper quadrant with "dyspepsia" similar to that prior to operation. The symptoms may even simulate ulcer. However colic, jaundice, chills and fever almost never occur. X-ray will show the distortion of the duodenum and stomach. One case of adherent duodenum, on x-ray, showed what was apparently an ulcer but none was found at operation. The adhesions were separated and the raw surfaces covered with omentum and peritoneum. Subsequent to operation all symptoms disappeared and x-ray showed absence of the ulcer appearance. After the gall bladder is removed the bed should be peritonealized. If any raw surface exists it should be covered by omentum, either as a free graft or attached in order to prevent postoperative symptoms. At secondary operation, lysis of adhesions, covering the raw surface and restoration of the stomach and the duodenum to a normal position, will relieve the symptoms as a rule.

Liver disturbances varying from a mild hepatitis to a severe biliary cirrhosis may be another cause of postoperative symptoms. Most of these are the result of long-standing infection of the liver and biliary tree. The symptoms are too well known to be discussed here.

Hepatitis, biliary cirrhosis, cholangitis of all degrees can be prevented only by earlier diagnosis and early and adequate operation primarily. Some of these conditions will persist postoperatively and reoperation will not be of benefit except in those cases as cholangitis where there is stone or stricture, and the relief of the obstruction and prolonged drainage may be of value. Serum homologous jaundice may occur postoperatively in patients who have been transfused or had plasma. It may be a source of worry for a few days but usually can be differentiated from surgical conditions.

PANCREATIC DISEASE AS A CAUSE OF POSTOPERATIVE SYMPTOMS

Recurrent attacks of acute pancreatitis, with or without jaundice, and carcinoma of the head of the pancreas including carcinoma of the ampulla, all may occur after cholecystectomy.

If a common channel exists between the pancreatic and bile ducts and if there is spasm of the sphincter Oddi plus concentration of bile salts in bile, recurrent attacks of pancreatitis may occur. Operative cholangiography or pancreatic juice in the bile of the common duct will confirm the existence of a common passageway. It may be easier in these cases, in fact in all cases where the etiology of the postoperative symptoms is unknown, to take advantage of the fact that morphine and its derivatives cause spasm of the sphincter and an increase in pressure within the common duct and reflux of bile into the pancreatic ducts where there is a common channel. The administration of codein as suggested by Gross *et al.*, after a serum ancylase and lipase specimen is obtained, then repeated tests for these enzymes done at regular intervals, may show a definite rise in values which are helpful in the diagnosis. However, this test may be positive in a normal person so it must be carefully correlated with the symptoms and evaluated accordingly.

Symptoms of recurrent acute pancreatitis are recurrent severe pain, often precipitated by a full meal. The patient becomes fearful of the attacks and does not eat, consequently, the weight loss is marked and characteristic. Diagnosis is difficult and is based on the history, serum ancylase determinations, pancreatic response to secretin stimulation, cholangiograms and pressure readings of the biliary tract.

In recurring pancreatitis the sphincter should be cut either by sphincterotome of Colp and Doubilet, or under direct vision after opening the duodenum. The papilla is often difficult to find, so, a probe is passed down the common duct to help to identify it, and the muscle cut for one centimeter on the anterior portion of the duct. Here in contrast to fibrosis of the duct, one may or may not use a tube with prolonged drainage, because the retraction of the muscle will prevent healing or fibrosis of the sphincter (whereas in fibrosis scar contracture and a mold is needed to prevent recurrence after section). Transplantation of the duct has been done by Bowers in four patients for this with good results.

Chronic pancreatitis may cause postoperative biliary symptoms. Pancreatitis is often associated with biliary disease before operation and continues to get worse. The outstanding feature in some cases is the intractable pain relieved only by morphine. It may or may not be associated with calcification. Calculous pancreatitis is rare and is usually detected by x-ray. Chronic pancreatitis with severe pain may be treated by splanchnic block and if this is successful, follow with bilateral splanchnicectomy, thoraco-lumbar symphathectomy or resection of part or all of the pancreas.

Chronic pancreatitis with jaundice, either persistent or recurrent, may follow operations on the biliary tract. However, jaundice that is persistent and painless may also be due to stone or carcinoma of the head of the pancreas. The latter is often considered to be painless but actually pain is a common accompaniment.

Exploration, biopsy and frozen section for confirmation of the diagnosis, and prolonged drainage either by means of a long "T" tube or anastomosis of the common duct to the duodenum may be done for this condition. The latter is popular with continental surgeons and is particularly useful if the pancreatitis causes severe compression of the duct.

One of our patients, a sixty year old female, had cholecystectomy and choledochostomy with removal of stones and had prolonged drainage for three months because of pancreatitis. This was proved by biopsy. The cholangiogram was normal before the "T" tube was removed. Eight months later, she returned with a severe unvarying jaundice for two months prior to admission to the hospital. The whole pancreas was now enlarged and firm, in contrast to previous operation when only the head was involved. A choledocho-duodenostomy was done, using a wide anastomosis. A wide anastomosis is essential to prevent stricture formation.

In carcinoma of the bile ducts, jaundice occurs early because it does not take a large lesion to obstruct the duct. Resectability is approximately twice as high as for that of carcinoma of the head of the pancreas if the lesion occurs in the lower part of the duct. In these cases jaundice may be remittent in early stages and is often associated with blood in the stools and diarrhea. The eventual outlook is usually poor particularly if the lesion is high in the porta and non-resectable. The same operation as for head of the pancreas is indicated. Otherwise some type of drainage either external or internal should be done, the latter being preferable. Carcinoma of the head of the pancreas may follow previous surgery.

Jaundice and pain are present. The increasing unvarying jaundice with loss of weight, negative laboratory findings such as obtained from duodenal drainage, possible indirect x-ray findings may indicate the malignancy but it may be difficult to differentiate except by exploration and even then one cannot be positive. Biopsy is positive in only fifty per cent of these cases because one does not get the neoplastic tissue.

Only about thirteen per cent were found resectable at the Mayo Clinic. In carcinoma of the head of the pancreas a resection of the head of the pancreas, distal part of the stomach, the entire duodenum and the lower portion of the common bile duct is done. The *Roux en Y* method is utilized with end-to-end anastomosis of the common duct to the jejunum above the end-to-side anastomosis of the pancreatic duct to the jejunum. Below this, an end-to-side anastomosis of the stomach to the jejunum is done. The proximal end of the jejunum is anastomosed below this. Catheters are placed in both the common and pancreatic ducts and brought down through the anastomosis and out through the jejunal wall on the anti mesenteric border lower down, then out through the abdominal wall. Radical resection for carcinoma of the head of the pancreas has been disappointing. Patients have not lived much longer than those who have had a palliative procedure.

BILIARY DYSKINESIA

Biliary dyskinesia is a term used to describe several different conditions both before and after cholecystectomy. In this paper we will confine it to the upper abdominal colics, biliary in type, occurring after cholecystectomy without jaundice, chills, fever, no increase in icteric index or disturbance of the liver function. Exploration of the abdomen, shows no organic pathology. One always feels as if the pathology has been missed. It is presumed that hyper-irritability of the duodenal biliary musculature causes the attacks.

The diagnosis is usually made by exclusion. The dyskinesia may be an expression of a migrainous or psychoneurotic state. Mirizzi suggests the diagnosis can be made by operative cholangiography and appropriate treatment applied. Bilateral thoraco-sympathectomy, splanchnicectomy, prolonged drainage of the common duct and cutting the sphincter of Oddi have been proposed for the relief of this condition. Most important is a correct diagnosis and the proper selection of the cases before the primary operation.

Womack has suggested that neuromata occurring around the stump of the cystic duct and along the common duct following cholecystectomy are the cause of this dyskinesia and suggests removal of the neuromata. This of course has to be confirmed microscopically.

Reich also has suggested cutting the nerve supply of the sphincter for biliary dyskinesia.

STRICTURE OF THE DUCT

Stricture due to an injury of the common duct is found in eighty per cent of the cases. Usually the duct is injured accidentally because of inadequate exposure, tenting of the

duct, bleeding and anomalies. Meticulous dissection with actual demonstration of the ducts, accurate hemostasis, careful application of the clamps under direct vision, will eliminate future trouble in ninety per cent of the cases. The causes of trauma to the duct may be (1) inclusion of a small piece of the common duct in the ligation of the cystic duct, (2) pressure of the drain (use soft rubber), (3) formation of foreign body granuloma around the ligature of the cystic duct, (4) an over sized "T" tube which causes pressure necrosis, (5) direct ligation and section of the duct (tenting by traction), (6) slow leakage from incomplete ligation of the cystic duct forming a puddle of bile or inflammatory mass around the common duct, (7) severe local infection as in Brewer's case.

Stricture may be annular and discrete or of a diffuse fibrosis involving a large part of the extra hepatic bile ducts. The most frequent site is at the junction of the common and the cystic ducts; next the supra-duodenal portion of the common duct.

Stricture is often the cause of postoperative symptoms. A history of operation on the biliary tract, usually cholecystectomy, is elicited. The symptoms usually fall under one of three groups:

Group I. Jaundice occurs promptly after operation, gradually deepens, is more or less constant. In this instance the duct probably has been ligated and sectioned completely. Occasionally a spontaneous fistula develops later on and the jaundice disappears.

Group II. Prolonged postoperative biliary drainage followed by intermittent jaundice and ascending cholangitis occur depending upon the degree of the patency of the fistula which determines the degree of the jaundice.

Group III. Jaundice appears insidiously months or years later. The patient usually has a normal postoperative recovery. There may be no pain or colic. In the beginning, the jaundice may be intermittent but later become constant. Once the stricture is established, colic, chills, fever or jaundice occur. Pruritis is likely to be marked. The laboratory findings are those of obstructive jaundice plus infection. If the stricture is not corrected, it leads to suppurative cholangitis or obstructive biliary cirrhosis and finally death. Death due to hepatorenal syndrome is not infrequent. The hemorrhagic tendency is great.

Treatment of stricture is often unsatisfactory because of the difficulties involved: (1) the operation is technically difficult, (2) liver pathology is always present, (3) the bile passages are always infected, and chills, fever and jaundice may recur after the repair, and (4) the repaired ducts have a tendency to contract and close again. The reason the stricture tends to recur is probably failure of epithelization. Distortion of the duodenum may contribute to the symptoms.

The essentials of operation for stricture are: (a) removal of the stricture, (b) accurate anastomosis of the ends of the duct or, the duct or ducts to the duodenum or jejunum, (c) some type of splint of either the ordinary "T" tube type or one with a long arm extending down into the duodenum or an intraluminary tube of rubber, vitallium or plastic, fixed by suture, should be used. Any of the latter may become plugged or pass spontaneously. A tube should remain in for more than six months because fibrosis is not complete until after that. It is advisable to leave them in a year. Details of the operation are:

1. Longitudinal incision of the stricture. Sew it up transversely. This is done if the stricture is discrete and narrow.
2. Resection of the stricture and end-to-end anastomosis of the ducts, mucosa to mucosa, with the insertion of the "T" tube, either above or below the suture line or an intra-luminary tube. This preserves the sphincter of Oddi. Mobilize the duodenum, head of the pancreas, even splitting the latter to find the distal portion of the duct to bring the ends together without tension.
3. Anastomosis of the common duct to the duodenum.
4. Anastomosis of the common hepatic duct to the duodenum.
5. Anastomosis of the left and right hepatic ducts to the duodenum.
6. Anastomosis of one of the hepatic ducts to the jejunum with or without resection of the liver (Longmire's method).

Anastomosis may be made over a short rubber tube of the Mayo-Sullivan type, a long rubber tube such as an ordinary catheter, a vitallium tube, a retention catheter or a plastic tube. In an anastomosis of the common hepatic duct to the duodenum one may use a retention catheter of the winged type. Short tubes are not passed out as quickly as long tubes; but they do pass out. If the short tubes are not expelled they may become blocked by bile and debris and have to be removed later. Long tubes of the catheter type have one disadvantage: due to the pull of duodenal peristalsis, they may pass out early. This is overcome by passing a silk suture through the tube, bringing out the suture through the skin of the abdominal wall and tying it over a button. The tube then can remain in until it becomes clogged or may be released by cutting the silk suture when desired. We feel the best method is excision of the stricture, mobilizing the ends of the ducts even if that necessitates mobilization or incision of the head of the pancreas. The "T" tube is brought out either above

or below the suture line in the duct. Preferably it should be left in for a year, and irrigated twice daily with saline solution. Of course in anastomosis of a very short hepatic duct or anastomosis of the right and left hepatic ducts to the duodenum, one may have to use a straight tube such as a catheter as described previously. A cholagogue should be given three times daily and the "Best" regime should be followed. Walters reports good results in 82 per cent of the duct-to-duodenum, 52 per cent in end-to-end. Lahey prefers end-to-end anastomosis.

Occasionally the duodenum cannot be brought up to the stump of the duct or the ends of the ducts approximated. Sullivan suggested using a rubber tube to bridge the gap and wrapping the omentum around it, establishing an internal fistula. We have one case, done seven years ago, where the tube was anchored by a silk suture. She passed the tube in four months. There had been no difficulty for five years, then she was lost sight of. Walters reports two similar cases. They are usually candidates for further surgery.

The establishment of an external fistula and then later transplanting this into the intestine has fallen into disuse because the fistula became obstructed after a few months. Hepatojejunostomy, with or without resection of the left lobe of the liver may be done. Some have formed valves in the jejunum to prevent regurgitation of the contents into the common duct, but Walters has concluded that it is not regurgitation that causes recurrence of the symptoms, but a narrowing of the opening.

The mortality of 10.2 per cent in 1924 has been reduced to 3.4 per cent in the period between 1940 and 1948, at the Mayo Clinic, due to (a) elimination of the hepato-renal syndrome by liver function tests and (b) careful pre-operative and postoperative treatment, with (c) meticulous attention to fluid balance, blood transfusion, vitamin "K" and glucose administration.

The appearance of pain, fever, jaundice, et cetera, after the common or hepatic ducts are anastomosed to the duodenum is not due to reflux of the barium, air or food, but to recurring obstruction of varying degree.

Benign fibrosis occurs usually after operation. One presumably congenital case has been reported. At the Lahey Clinic, stricture in 84 per cent was of traumatic origin. The mortality now reported there is 8.6 per cent.

SUMMARY

Only in calculous cholecystitis, do we get a 95 per cent cure after cholecystectomy.

Early and accurate diagnosis with a careful selection of the cases should be done to eliminate unsatisfactory results. All cases should be carefully studied and this should include fluoroscopy and roentgen examinations of the esophagus, gastro-intestinal tract, colon and gall bladder.

A meticulous operation should be done with a full and complete appraisal of the pathology present. Effort to correct the latter should be made.

Obstruction and infection, either alone or in combination, are the great hazards in secondary biliary symptoms. They are most difficult to eliminate and are likely to persist or recur in spite of secondary operation. Therefore, early and complete operation should be done on the diseased biliary tract.

254 Montgomery Street

EVALUATION OF HEALTH IN INDUSTRY

The American Foundation of Occupational Health has taken over the evaluation and approval of medical services in industry which had been conducted by the American College of Surgeons for the past 20 years. The Foundation is setting up a board of governors to guide them in the new project. On this board will be 3 representatives each from the Industrial Medical Association and from the donors to the project; 2 each from outstanding business executives; and one each from the American College of Surgeons, the American College of Physicians, the American Medical Association, the American Academy of Occupational Medicine, the Association of American Medical Colleges, the Association of American Schools of Public Health, and the Industrial Hygiene Foundation. The Foundation will continue the same type of plant evaluation and approval that the American College of Surgeons had conducted, and expand this service when additional funds become available. On its last approved list the College included the names of 1459 industrial establishments—(63 per cent of the plants representing over 6,045,000 employees which had been surveyed). Dr. Gaylord R. Hess, who has been in charge of the activity for the College, will continue to direct it for the American Foundation of Occupational Health.

MANAGEMENT OF ALLERGIC CONDITIONS OF THE UPPER RESPIRATORY TRACT *

Nathan Schaffer, M.D., East Orange, N. J., and
Edward E. Seidmon, M.D., Plainfield, N. J.

At least 50 per cent of adult allergy has its origin in childhood; therefore, an early diagnosis of allergy in childhood, and adequate and complete therapy and control will reduce the incidence of upper respiratory tract allergy in the adult population. Hay fever represents about 45 per cent of respiratory tract allergy; asthma, about 35 per cent; allergic perennial vasomotor rhinitis, about 15 per cent.

The conditions which are the result of upper respiratory allergy, both in children and adults, consist of vasomotor rhinitis, seasonal and nonseasonal; polyposis, sinusitis, tracheitis and tracheobronchitis, and asthma. It is important to differentiate between these conditions, so as to identify the causes more carefully. More than 14 million people in this country are considered to be allergic; and of these, the greatest number of allergic manifestations fall into the categories listed above.

The normal physiologic functions of the upper respiratory tract are to warm, humidify, and filter inspired air, and to remove waste products from the lungs after the exchange of oxygen for carbon dioxide. Any change in the tissues will cause interference with these functions. The normal air humidity should be from 30 to 40 volumes per cent, and the temperature should be at body temperature for ideal respiratory conditions.

The pathology of upper respiratory allergy is the same throughout the entire tract, varying only in location, and with individual differences in the histology. There is hyperplasia of the epithelium, eosinophilic infiltration, edema with round cell infiltration about the arterioles with compression of the arterioles, connective tissue proliferation, and the dilation, compression, and atrophy of the glands. In the nasal passages, when these processes becomes extreme, polyposis results. In the bronchial tree, this process causes increased thickness of the bronchial wall, with narrowing of the lumen, mucous plug formation, and spasm of the arterioles and smooth muscles. All this pathology may be complicated by episodes of inflammatory processes.

Causes of upper respiratory tract allergy fall into six main groups:

1. Pollen and fungi
2. Inhalants, house dust, and its components
3. Infection
4. Food
5. Physical allergy
6. Intrinsic allergy—cause undetermined

Pollen and fungus allergy is seasonal. Knowing the seasons of pollination will help identify the causes. Inhalant allergy is by far the largest factor, and with infection, causes the most trouble. Food allergy is important, as any food or ingestant (and this includes drugs) can cause allergy of any part of the upper respiratory tract. In infants and children up to the age of three years, the principal allergens are foods and infection. Physical allergy plays a role in all cases of upper respiratory allergy; the variations of heat and cold and humidity may bring on attacks. Intrinsic allergy, cause undetermined, has many factors; besides that of physical allergy, there are emotional factors which must always be considered. As our search goes on for causes, more and more cases of intrinsic allergy are being reclassified with resultant specific therapy.

In a consideration of specific diagnosis, these etiologic factors must first be analyzed and then the proper skin testing procedures done, based upon a careful history of the case. In all cases of allergy, the heredity factor is of utmost importance; if one parent has allergy, 30 per cent of the offspring will have it before the age of 30; if both parents have allergy, 70 per cent will have it before the age of 10.

The diagnosis of nasal allergy is made on

* Read before the Annual Meeting of The Medical Society of New Jersey, May 14, 1951.

the careful history and observation of the patients with complaints of frequent repeated upper respiratory infections and/or constant congested nose. The diagnosis of seasonal allergy is comparatively easy as the patient gives a story of repeated attacks coming on at specific seasons of the year over a period of years. Observation, especially true in children, reveals the following:

1. Allergic salute
2. "Bunny nose"
3. Sniffles and paroxysmal sneezing
4. Clucking noise in throat
5. Irritability
6. Conjunctivitis with tearing
7. Snoring

Observation of the patient with tracheitis reveals a worried expression, with a constant dry, racking non-productive cough. The asthmatic patient shows:

1. Rapid respiration
2. Laryngeal muscle and rib muscle retraction
3. Anxiety
4. Audible wheeze on delayed and prolonged expiration
5. Emphysema in long chronic cases

Closer examination in vasomotor rhinitis reveals:

1. Conjunctivitis with or without tearing
2. Swelling, bogginess, and pallor of the mucous membranes
3. Hyperplasia of lymph follicles of the pharynx and soft palate
4. Transillumination and x-ray of the sinuses may show soft tissue swelling
5. Examination of nasal exudate shows preponderance of eosinophiles.

The tracheitis patient shows only pale membranes. Those who have bronchitis may have roughened breath sounds along the spinous processes.

The asthmatic patient shows:

1. Expiratory and inspiratory bilateral wheeze
2. Rapid shallow respiration
3. Musical rales throughout both lung fields
4. In severe cases, cyanosis

All that wheezes is not asthma, even in the office of an allergist. Good results depend on the accuracy of diagnosis. The differential diagnosis for conditions which may resemble allergic asthma are:

1. Bronchiectasis, which may be a complication of asthma
2. Cardiac asthma—heart failure
3. Tuberculosis
4. Lung abscess
5. Ball valve phenomenon in the trachea or bronchial tree
6. Foreign bodies
7. Malignancy and cystic growths
8. Thymus enlargement
9. Peribronchial lymph gland hyperplasia or suppuration
10. Silicosis and related diseases with fibrosis
11. Infections: sinus disease, pneumonia and fungus disease, pertussis
12. Spontaneous pneumothorax
13. Cystic fibrosis of the pancreas
14. Leukemia
15. Loeffler's syndrome (allergic pneumonitis)

Complete skin testing and the evaluation of the results lie in the domain of the allergist. The general practitioner, with competent, stabilized, and potent extracts, should be able to screen for the common pollens, house dust, and some of the key foods. It must always be remembered that skin testing alone does not constitute the practice of allergy. We have seen too many allergic patients who have had concoctions of foreign protein injected without any reason, except for a positive skin reaction. Skin tests are not infallible. Too many factors are involved in the manufacture of allergens, and their ability to remain potent to list them all here. Commercial extracts are by necessity, and in the overall picture, weak. The method of testing, and interpretation of skin tests, is not always simple. Also, one must warn, and be warned, that we are dealing with a dangerous phenomenon. Some of these protein materials may cause anaphylactic shock with death, even through so simple a procedure as a skin test.

There are numerous methods of testing, the most common of which is the skin test, which may be either "scratch" or intradermal. Each has its advantages and disadvantages, and must be worked with for some time to master the technic and interpretations. Sometimes, the skin of the patient cannot be tested directly, or, as in infants, it is not advisable to do direct testing. In these cases, the passive transfer method is used, being sure to use a recipient who has no known allergies. With suitable controls, this method is excellent. Other methods include the conjunctiva test,

where small quantities of the suspected substances are placed into the conjunctival sac and the resulting conjunctivitis noted; and the inhalant test: blowing the offending material directly into the nose.

A positive skin test is of importance only if it has some relation to the symptoms of the patient. A good example of this can be seen in those persons with ragweed hay fever, who, though having symptoms only in August and September, give large reactions to the grass and tree pollen. The question arises if treatment should also be given for those pollens. We believe not. The patient is watched carefully the next season, and if symptoms do occur, treatment is started at once. The same can be said of food skin reactions. All positive food tests should be checked clinically; a positive test may mean sensitivity in the past, present, or future. Accordingly, when a food gives a positive reaction, the food should be given a clinical trial; it should be included in the patient's diet in large quantities for three days, and if no allergic reactions occur, it may safely be retained in the diet. By this method, foods which actually cause symptoms will be weeded out, and the patient can still have an adequate diet. In food allergy cases, it is essential that a food diary be kept, showing all foods eaten and symptoms resulting. By going over this diary, cause and effect are noted and offending foods eliminated. Patients cannot remember all items in their diet. The diary may have to be kept for months.

The ultimate goal in specific treatment is the elimination of any symptoms resulting from contact with offending substances. Unfortunately the body does not produce any permanent antibodies to help. The next best thing is to produce, in the body, temporary antibodies. If these temporary antibodies are produced long enough, there is a gradual disappearance of the reactability of the tissues toward these foreign substances. The same result can be obtained by total elimination of the allergenic substance for a long enough period of time. With this in mind, treatment has two major foci; elimination, and the building up of temporary antibodies in the tissues.

The first point—elimination— is especially desirable in cases of food allergy. Complete elimination of the offending food is essential to good results. The child patient must be watched so that he does not surreptitiously eat any forbidden food. The mother or housewife must read labels of all prepared foods. The physician must tell the patient or parents where they can expect to find any of the forbidden foods, which may be masked as an ingredient of some item in the daily diet. Only by constant daily vigilance can the food problem be overcome.

With inhalant cases, we have a harder problem. Elimination is not always possible, and in the cases of pollen and fungi, it is nigh impossible. Air filters and air conditioning can help, but the patient will come into contact with offending substances as soon as he leaves the air conditioned room. Dust-proofing a bed room by the elimination of any dust-producing materials, and the use of foam rubber mattresses and pillows, or allergy-proof covers, help the dust-sensitive patient. Stuffed or hairy toys are forbidden to children with dust sensitivity. In a dust-free room, rugs must be washable; drapes or curtains should be eliminated, or washed constantly; washable blankets are better than quilts.

Animal pets should be eliminated. At times this may be difficult, but there are cases where success depends on this. In the living room, the patient should sit on a hard chair, without upholstery; a child should not play on the floor if there are rugs. Linoleum is the preferable floor covering. The kitchen is the best room in the house for the dust patient, as there, dust producing materials are almost completely absent.

Pollen and fungi cases should have desensitization treatment preseasonally — preferably perenially — with the correct potent extracts. Treatment should continue for at least two years after complete cessation of symptoms. If it is then stopped, relief may be obtained for some years, or perhaps permanently.

The house should be checked for drafts, proper temperature, and humidity. Even temperatures should be maintained, and excessive dryness avoided. In pollinosis cases, bedroom windows should be kept closed during the of-

fending seasons. Certain pollen patients will also need seasonal diets to eliminate secondary offenders which cause failure in treatment. In children and adults, ice cold drinks and foods, as well as extremely hot soups and drinks should be eliminated, along with highly spiced foods. These can cause return of symptoms due to excessive temperature changes with their physiologic responses.

Even the best housekeepers should be warned to clean around radiators and hot-air heating ducts with a vacuum cleaner before the heat is turned on in the fall, because the heat will dissipate the dust. Slip covers and furniture should also be vacuumed carefully in the fall, because pollen and fungi enter the house in quantity during the open-window summer season. With attic suction fans, this pitfall is more common than ever.

Infection is the most common single complicating factor in the allergic patient, and is of utmost importance in children. The infection can be anywhere in the upper respiratory tract. Infectious allergy can usually be suspected in children who develop a cold with fever which is followed with the allergic attack in 24 to 48 hours. Examination shows a red, boggy, nose, engorged and enlarged tonsils and adenoids, or (if tonsils are out) enlarged lymphoid nodules on the posterior pharynx. The trachea may be red and engorged with edema, and chest examination may reveal areas of pneumonia or pneumonitis. Lymph glands are usually enlarged and tender. These patients must be treated drastically, usually with one of the antibiotics, or with the sulfonamides, or both. After the acute phase, the patient with foci of infection may have to have surgery. Where there are enlarged and cryptic tonsils and adenoids, these should be removed surgically. Tonsillectomy should be done in a non-pollinating season, during the very late fall or winter. The reason is that a number of cases do develop pollen allergy if the tonsillectomy is done during a pollen season. Following tonsillectomy, patients with diffuse hypertrophic glandular islands in the postnasal pharynx may be obliged to have either radon or x-ray therapy to reduce the size of these glands. Stock or autogenous vaccines to promote increased resistance may be helpful.

The non-specific treatment of allergy is symptomatic and non-permanent. This entails the use of drugs which will stop the allergic process for a short period of time. These drugs are ephedrine and the numerous ephedrine-like substances, antihistaminics (which are much more effective for nasal allergy than for asthma); epinephrine and epinephrine-like preparations, potassium iodide, aminophyllin, and lately, cortisone and ACTH. Many other drugs have been used, but their effectiveness has not been proved.

The drug of choice in an isolated acute attack of asthma is epinephrin hydrochloride. It should be used early in the attack in a sufficient dosage to cause an immediate beneficial effect. This dose may be regulated from 0.2 to 0.5 cubic centimeters. In small children, Syrup of Ipecac, which causes vomiting, is excellent, because at the same time it empties the small bronchioles of mucous plugs. The dosage for this action varies between 3 to 30 minims, and may be repeated at hourly intervals. Alterative drugs, chief of which is potassium iodide, are helpful in liquefying the collection of mucous secretions in the fine bronchioles. Dose is from 8 to 40 grains daily.

Antispasmodic drugs like aminophyllin are especially beneficial when given intravenously to adults in acute asthma in doses of 7½ grains. It should be given slowly with a 25 or 26 gauge needle. Aminophyllin may also be given by suppository or orally, either alone or in combination with ephedrine sulphate.

Sedative drugs are also best given early, before the patient is exhausted. Such drugs as phenobarbital and the proprietary barbiturates may be used in adequate repeated dosage. Morphine or atropine should *never* be used in the acute asthmatic attack. Codeine and Demerol[R] may be employed with success in lessening anxiety and yielding relaxation and rest.

The antihistaminic drugs are of value in the nasal allergies. Their worth in asthma is debatable, but in combination with ephedrine and the ephedrine-like drugs do give some relief in pollen asthma.

With the advent of cortisone and ACTH, the problem of status asthmaticus has been lessened. These two drugs are extremely valuable. They do not cure; they relieve. This must be remembered at all times, and also that the full physiologic action of these drugs, and the body and tissue responses to them, is not yet completely known. The dosage of ACTH and cortisone in children for the status asthmaticus is 100 milligrams a day for 5 to 10 days. The adult dose is 300 milligrams a day for three days, followed by 200 milligrams for 3 days, and then 100 milligrams for 4 days. Such treatment renders the patient temporarily asymptomatic. Prolonged usage of either of these drugs is not safe, as they are capable of causing serious side effects. Oxygen and oxygen and helium are of value in aiding status asthmaticus.

Accurate diagnosis and therapy of upper respiratory tract allergy in children can prevent the majority of adult allergies. Results in children are usually gratifyingly good. Treatment of the allergic child or adult must cover a long period of time. The term "outgrowing" allergy, is a misnomer, as allergy can shift from one system to another. The baby with eczema who develops asthma with the disappearance of the untreated eczema, is seen by all pediatricians. In the adult, persistent search for etiology, and adequate and prompt attack with proper therapy, gives satisfactory results.

To date, every "miracle drug" discovered in the last five years, instead of curing, has served only to confuse the allergy problem. Some of these drugs, such as the antihistaminics, while blocking hay fever symptoms, result in some of the patients developing asthma. No drug has yet been discovered which will change the allergic constitution, and effect a cure. Further research in the basic altered physiology of the allergic individual must be done and understood before drug development will perfect a cure.

172 South Arlington Avenue
221 West 7th Street

CHURCH COUNCIL OPPOSES STATE MEDICINE

The American Council of Christian Churches has re-affirmed its resolution of April 1949, against socialized medicine. "Freedom of the individual, freedom of the doctor, and freedom of medical research are essential to the preservation of a free society." The Council acknowledges that: "We are aware of the fact that among the clergy and in certain church groups there is increasing pressure for government socialism beginning with socialized medicine. The leadership of Methodist Bishop G. Bromley Oxnam on the Committee for the Nation's Health spearheading this drive is only a part of the over-all program to socialize the entire world under the guise of establishing the Kingdom of God. The tyranny, abuse, corruption, confusion, demoralization, and irresponsibility attendant upon any effort to make the state responsible for a person's health will be a valid judgment of the Almighty God upon those who lightly esteem their God-given freedom. No state can assume either the responsibility which belongs to an individual or the prerogatives which belong to God Almighty."

COURSE IN CHEST DISEASES

Intensive course in recent advances in diseases of the chest is announced by the American College of Chest Physicians. The course will be given in New York full-time from November 12 to 17 inclusive. Tuition fee is $50. For further information write to the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10.

WANDERING SPLEEN WITH TORSION OF PEDICLE

Milton N. Neibrief, M.D., Irvington, N. J. and
Eugene V. Parsonnet, M.D., Newark, N. J.

Wandering spleen with torsion of its pedicle is rare enough to warrant report. Out of 1003 splenectomies at the Mayo Clinic[1] only two cases of wandering spleen were encountered, an incidence of 2 tenths of one per cent. In a thorough review of the literature in 1933, Abell[2] found reports of 93 cases and added two of his own. By 1940, Bohrer[3] was able to locate 20 additional cases and in 1943 the reported total[4] was 120 cases of wandering spleen with torsion of the pedicle. We have since then been able to find only one more case.[5] With the one here presented, the aggregate total is only 122 cases in all the literature.

The spleen is the largest of the ductless glands, its dimensions being about 12 by 7 by 4 centimeters with an average weight of 160 Grams. Its normal position is in the left hypochondrium fully encased in peritoneum. Its larger convex surface is deep to the 9th, 10th and 11th ribs and its parietal surface is in contact with the diaphragm. The smaller visceral surface is concave and made somewhat irregular by its contact with the stomach, the upper pole of the left kidney and the splenic flexure of the colon. The splenic artery and vein reach the hilum of the gland through the lieno-renal ligament which, together with the gastro-lienal and phrenico-colic ligaments form the supporting means of keeping the spleen and its pedicle in their proper position.

A wandering spleen is one that may be found in any part of the abdominal or pelvic cavity other than in its normal location in the left hypochondrium. It is attached by an elongated pedicle. Indeed, it may even be located in the chest, through a diaphragmatic hernia. Splenic ectopia has been classified in four groups; wandering spleen, double spleen, multiple spleen and accessory spleen. And of the four types, the wandering spleen is the one most frequently involved in acute surgical conditions.[4] Congenital cases are ascribed[1] to the absence of the supporting phrenico-colic ligament. The acquired type is charged to a variety of factors. Trauma, (with consequent stretching and elongation of the supporting ligaments) may be the cause as is apparently the case with the patient we are presenting. The added weight of a splenomegaly may be a factor since a number of the earlier cases were in patients with malaria. However, there has been no report of a wandering spleen in a patient with leukemia, Bauti's or Gaucher's disease, all conditions with considerable splenomegaly. Relaxation of the abdominal wall has also been considered a factor because of its greater frequency in parous females.

The age and sex incidence is especially interesting. About 65 per cent of the patients have been between 21 and 40 years of age with the ratio of about ten females to every male case. The first splenectomy in a male[6] for this condition was done in 1918. Only four cases are reported in children under 10 years of age but, strangely enough, the first three were boys. The youngest was a 6 year old[7] operated on in 1921. The next two boys[8] were 10 and 8 years of age[9] reported in 1934 and 1935. The first record of a female child was that of an 8 year old girl[10] reported in 1938. Our patient was a 6 year old girl, the youngest female patient ever reported having a wandering spleen with torsion of the pedicle.

The major symptom of a wandering spleen is usually recurring bouts of mild to severe abdominal pains attributed to partial twists of the elongated splenic pedicle. When the torsion persists or increases in severity the symptoms are those of an "acute abdomen" and the most frequent preoperative diagnosis is a twisted ovarian cyst. Such a diagnosis was

1. Maingot, R.: *Abdominal Operations.* 2nd Ed., p. 481. New York: Appleton-Century-Croft (1948).
2. Abell, I.: Annals of Surgery, 98:722 (1933).
3. Bohrer, J. V.: Annals of Surgery, 11:416 (1940).
4. Emmett, J. M., and Dreyfuss, M. I.: Annals of Surgery, 117:754 (1943).
5. Dardill, J.: Ectopic Spleen with Torsion of Pedicle Containing Tail of Pancreas. Afrique Franc. Chir., p. 204 (1947).
6. Adkins, E. H.: Annals of Surgery, 107:832 (1938).
7. Southan, A. H.: Lancet, 1:642 (1921).
8. Percy, N. M.: Surgical Clinics of North America, 14:971 (1934).
9. Motley, J. C.: Virginia Medical Monthly, 62:14 (1935).
10. Truesdale, P. E., and Freedman, D.: Surgery, 4:700 (1938).

considered in the case we are presenting. The acute signs result from a thrombosis of the splenic vessels within the twisted pedicle. Infarction of the spleen follows, with signs of a localized peritonitis accompanied by a rising temperature, pulse and leukocyte count. Examination of the abdomen will reveal direct and rebound tenderness. If the abdomen is not rigid, a smooth, firm, movable mass may be palpable. A spleen lying in the pelvis may be felt by rectal or vaginal examination.

If torsion of the pedicle is never complete the symptoms result from the pull of the ptosed spleen on the stomach *via* the gastrolienal ligament. The patient will complain of epigastric pain, dyspepsia and flatulence. The picture simulates peptic ulcer or gall bladder disease. The wandering spleen may also become fixed with adhesions to any portion of the gastro-intestinal tract and give symptoms of mechanical compression with x-ray evidence of extrinsic pressure on the bowel. When the pedicle elongates enough to permit the spleen to migrate to the pelvis, the findings suggest a tumor mass of pelvic origin. Bohrer[3] reported a 26 year old male with an "acute abdomen" upon whom a barium enema revealed a diaphragmatic hernia with the large bowel in the left chest. However, the cause of the acute symptoms was a pelvic spleen with marked torsion of its pedicle.

The accepted treatment of wandering spleen with torsion of its pedicle is splenectomy. Prognosis following surgery is uniformly good. Even in the earlier cases (reviewed by Abell[2]) there were 66 recoveries and 15 deaths following splenectomy. A more conservative procedure such as detorsion and replacement or splenopexy is more dangerous and is not recommended. Bland-Sutton and Conklin each reported a case in which detorsion and replacement were done. Both patients again developed torsion of the pedicle and required re-operation with splenectomy.[6]

CASE REPORT

A white 6 year old female was admitted to the hospital on November 8, 1949, complaining of severe abdominal pain, vomiting and fever. The present attack began four days prior to admission. Present illness really dates back to July 4, 1949, when she was struck by an automobile. She suffered a cerebral concussion, multiple contusions of the entire right side, fracture of the right ilium and intra-abdominal injuries of undetermined nature. She complained of abdominal pain almost immediately following the accident. Abdominal rigidity, tenderness and distention were noted then. She was observed in the hospital and conservative therapy was continued because of the gradual decrease in severity of the abdominal pains, tenderness and distention. After two weeks she was symptom-free and remained so for three weeks before she complained of periumbilical pain. Examination then revealed a non-tender, freely-movable, smooth grapefruit size mass in the mid-abdomen. X-rays of the gastro-intestinal tract were entirely negative. The pains soon subsided and the mass was no longer palpable. A similar episode of abdominal pain followed in September. This attack was accompanied by an elevation of temperature and leukocyte count. With subsidence of this attack she was again symptom free until the present episode began with pain in the umbilical area. This was soon followed by nausea and vomiting with increase in severity of the pains. When seen in the hospital her temperature was 104.8, pulse 136 and respirations 26. The child was acutely ill and toxic.

Figure 1

Examination of the abdomen showed diffuse rigidity, tenderness and moderate distention. The rigidity and tenderness were more marked in the right lower quadrant. Rebound tenderness was present. No masses were palpable on either abdominal or rectal examination.

A preoperative diagnosis of either (1) a right twisted ovarian cyst or (2) perforated appendix with peritonitis was made. Under general anesthesia a smooth, freely movable mass could be palpated in the right lower quadrant near the umbilicus. A transrectus incision was then made below the umbilicus, the abdomen opened and found to contain a large quantity of clear serosanguinous fluid. Lying free in the right lower quadrant was a large, markedly congested spleen, its pedicle twisted in several complete turns. The spleen was readily delivered out of the abdomen, its pedicle clamped, cut and doubly ligated and allowed to retract. The appendix, which appeared injected, was then removed in the routine manner and the abdomen was closed in layers. The patient's postoperative course was entirely uneventful and she

Figure 2

was discharged from the hospital three days later.

Pathology—Specimen consists of a spleen together with a portion of its pedicle. The spleen measures 14 by 9 by 7 centimeters. It weighs 420 Grams. It is deep purple in color. The capsule is tense. The attached pedicle is 5 centimeters long and 2½ centimeters in diameter. It is edematous and twisted. Clots protrude from the cut ends of the vessel. On section, the specimen presents a dark, red, wet surface which drips blood freely. The splenic vessels are occluded by fresh, dark red clots. The microscopic examination reveals a marked congestion of the splenic pulp with the red cell elements compressing the trabeculae. *Diagnosis*—Acute splenic infarction with torsion of its pedicle.

SUMMARY

We have presented a short review of the literature on wandering spleen with torsion of pedicle and added the case of a 6 year old child, the youngest female patient on record with this condition.

979 Clinton Avenue
89 Lincoln Park

A PERFECT SUBSTITUTE FOR MORPHINE?

Perfection of a new synthetic narcotic, methadone, to replace morphine is announced by Dr. Henry K. Beecher, civilian consultant to the Army Surgeon General. Methadone has been tested at the farthest forward evacuation hospital near Hamhung on hundreds of American and allied wounded. Dr. Beecher declared that the field tests verified the findings that have been made in thousands of postoperative cases during the last three years at Massachusetts General Hospital.

The story of methadone goes back to the day in 1945 when the Army took over the I. G. Farben plant in Germany. Preliminary work had been done there and the information turned over to the Research and Development Board of Army Medical Service. During the postwar years the Surgeon General's Office has worked closely with other interested groups to perfect the new synthetic which has the same effect as morphine, milligram for milligram, and which is made from nitriles derived from nitrogen and hydrocarbons.

Final validation has been made under the most rigid conditions. Methadone can be used either as a substitute or interchangeable with morphine. The racemic form of methadone is now on the market and is being made by several manufacturers for the government. The form known as "levo-iso" is the best to date.

Methadone may be less habit forming and will probably be a great help in curing morphine addicts. Tests at the U. S. Public Health Service Hospital for addicts at Lexington, Ky., showed the drugs relieve the sufferings of patients being taken off morphine.

While the pain killing power is as great as that of morphine its side effects are even better since "levo-iso" produces far less nausea and vomiting. It has the same effect in depressing respiration as does morphine. While generally administered subcutaneously, it may be given intravenously or by mouth.

Two field tests were made in the Far East, one by three doctors at Tokyo Army Hospital who administered methadone on a round-the-clock basis; the other by Dr. Beecher himself at the evacuation hospital near Hamhung. In the field it was used pre-operatively in from minutes to hours of the time men were wounded. One major objective of the Korean field tests was to see whether it would stand up under the stress and strain of abnormal conditions. It did, even when the temperature was 27 degrees below zero. Methadone has the same rapidity and duration of effect as morphine.

The new discovery makes the United States quite independent of foreign opium markets of Asia and the Near East.

UNUSUAL COURSE AND THICKENING OF THE ROUND LIGAMENT OF THE LIVER CAUSING SYMPTOMS SIMULATING PYLORIC STENOSIS*

LEON E. DE YOE, M.D., and JOHN A. IANACONE, M.D., Paterson, N. J.

A search of the literature for reports of the unusual course or thickening of the *ligamentum teres* of the liver reveals less than a dozen such cases (all in adults) reported up until 1948. No case was diagnosed prior to operation. We report below a case in a new-born, which simulated and was operated on for pyloric stenosis.

This condition was first actually observed by Lagenbeck in 1894. Schmieden and Peiper (1928) described two cases. The first a young girl who was subjected to treatment for gastric ulcer. Operation disclosed a tense hepatic *ligamentum teres* which exerted pressure on the stomach and the colon. After the *ligamentum* was severed, the patient recovered. She was under observation for ten years. The second was in a patient suffering from cardalgia. Operation revealed a tense hepatic ligament which was resected. This patient was free from symptoms for a year but later was admitted with symptoms of gastric ulcer. Eskes in 1928 described a case with ileus in which the hepatic ligament exerted pressure upon the pylorus. A similar case was published by Meyer Wildisen in 1933. Volkmann, in 1920, reported on a man 20 years of age who sufferred pain after meals. X-rays revealed an irregularity of the lesser curvature in front of the pylorus. This was diagnosed as a new growth or ulcer. At operation, the surgeon found a round ligament that was tense and exerted pressure across the stomach. In 1948 LeGac reported a case where the round ligament had contracted an adhesion with the gastro-colic ligament and made upon the gastric wall a furrow of constriction from which the ligament was liberated. Also in 1948, Francis and Nielson reported a case in which the round ligament, thicker than a lead pencil, lay across the pre-pyloric area, constricting it, with the x-ray appearance of obstruction.

CASE REPORT

This white, female, new-born is the second child of a 36-year old mother. The first child was normal. The mother was in labor 6 hours 15 minutes.

On the first day of birth, the baby lost seven ounces. She was placed on a formula (Dryco 8 tablespoonsful, Beta Lactose 2 tablespoonsful, water to 12 ounces) and fed two ounces every 4 hours. On the second and third day she vomited. She was given 1/1000 atropine solution and Hartman's solution subcutaneously. The fourth day she continued to vomit. It was thought to be projectile, so the atropine was increased with no results. Slight peristalsis was observed after ingestion of water but no tumor mass was palpable. X-rays demonstrated a remarkably distended stomach. The serial films at 1, 2, 3, 4, 5 and 24 hours demonstrated an almost complete obstruction of the pylorus as revealed by a minute amount of the opaque medium within the small intestine up to 5 hours, and in the mid-transverse colon up to 24 hours. The diagnosis was congenital pyloric stenosis. Operation was performed the following day.

At operation, the round ligament was seen to be slightly smaller in diameter than a lead pencil, tense, and to go almost straight downward into the abdomen. The pylorus was immediately visualized and palpated but found to be smooth and soft with no evidence of pathology. A general upper abdominal exploration was done, but this was negative. Returning to the round ligament by palpation and visual examination, it was determined that it did not run in its usual manner from the anterior abdominal wall to the lower surface of the liver, but considerably lower and towards the posterior abdominal wall and that it was under tension. It ran over the pre-pyloric area of the stomach and seemed to press down on it. On this basis, it was assumed that this was a congenitally thickened and wider ligament, with an unusual course and exerting pressure on the stomach. It was doubly ligated 3 centimeters from its origin in the anterior abdominal wall. Two centimeters were excised.

The abdominal wall was sutured in layers using continuous catgut for the peritoneum and interrupted double 0 black silk for the fascia and skin.

Laboratory report on tissue:—"Specimen contains a piece of pliable tissue total volume diameter 6 millimeters. Section shows fat, fibrous tissue and vein consistent with ligamentum teres."

On the first postoperative day, Beta Lactose 1½ ounces, were given every 2 hours. All of this was retained. On the second postoperative day, a fuller formula was given and retained. She continued to gain in weight for the next week, then remained stationary for almost a week, but then continued to gain again consistently, a half to a full ounce a day. On an occasional day, there was no gain. There was no vomiting but only slight occasional

* From the Surgical Service of the Paterson General Hospital, Paterson, N. J.

regurgitation. She was discharged on the 34th postoperative day and had an uneventful course at home except for an unexplained fever six weeks later for which she was hospitalized. Following this, there was some retardation in her general health. All of this has now cleared.

The diagnosis of congenital thickening or unusual course of the *ligamentum teres* of the liver is impossible prior to operation. The symptoms and physical findings, including x-ray, are those referable to disease of the pylorus (or gastric ulcer in the adult). Vomiting and obstructive x-ray findings and no palpable mass beginning immediately after birth are consistent with congenital malformations of the round ligament as observed in the above case. It would seem that there should be more cases in the literature, but this may be attributed to a failure to report them. Or they may have been overlooked.

SUMMARY

1. The incidence of congenital malformation or unusual course of the hepatic ligamentum has not been determined.

2. The symptoms and signs are those referable to the pylorus or stomach.

3. When operating for pyloric stenosis, or in adults for gastric ulcer, the round ligament should be examined.

602 Broadway
310 Fifth Avenue

THE FAMILY DOCTOR'S ROLE IN CHILDREN'S CONDUCT DISORDERS

Roland D. Roecker, M.D., Summit, N. J.

The family physician sees maladjusted school children earlier than the specialist. He is capable of treating most of these children unless their behavior is complicated by frank psychosis, psychoneurosis, or too deeply ingrained personality traits. He may feel inadequate from lack of experience and so avoid such problems. For this reason the following procedure is suggested.

The chief complaints he will receive in the approximate order of frequency are:

(a) Academic failure.

(b) Aggressive behavior toward parents, playmates, or teachers; verbal, physical, or both.

(c) Delinquency (such as lying, stealing, or sexual misbehavior).

(d) Truancy.

(e) Submissive behavior. This is a rare complaint, as the shy, withdrawn child, even if he is a very effeminate boy, is well tolerated because he does not inconvenience others.

To understand the problem of the child fully, an inventory of several factors is suggested as follows:

(1) A complete general physical examination (including neurologic examination and occasionally electroencephalogram) is done to rule out serious organic disease. Minor physical disorders as tonsillitis, flat feet, allergy or dermatophytosis should not be incriminated unless there is strong evidence pointing to an unmistakable cause-and-effect relationship. Rheumatic heart disease, if it has altered parental attitude toward the patient or has affected the child's activities, may be significant.

(2) Estimation or measurement of intelligence. Usually the family physician can tell if the child is grossly subnormal intellectually. He can check this by test results available from most schools.

(3) Recognition of personality traits. Is the child passive, aggressive, truthful, sophisticated, et cetera? This appraisal develops from interviews with the child and his parents. The child is asked who and what he likes and dislikes and the reason. Hobbies, recreation, work around home, and his role in leading, following or improvising, will give clues to his personality. The parents as well as the child will color the accounts of his behavior.

(4) Home situation.

(a) The adjustment of parents should be ascertained. Quarrels and separations threaten the child's security and induce anxiety. The

child is forced to choose one parent or develop a conflict of loyalties.

(b) The attitude of the parents toward the child must often be estimated as parents will conceal or fail to recognize their attitudes. Though the parents may express love and acceptance of the child, they may show rejection through excessive punishment or irritability with minor behavior deviations. Overprotection is usually due to "possessiveness". This well-meaning but stifling trait will rob the child of his chance to learn by experience. "Demanding" attitudes may stem from desire of parents to achieve success through their children when this can not be personally realized.

(c) The adjustment of siblings should be determined. This may give clues to environmental factors. How brothers and sisters react toward the patient and how the patient reacts toward his siblings, may explain aggressive or submissive attitudes towards outsiders.

(d) There may be others in the home (grandparents, uncles, aunts, cousins or boarders) who are influencing the child's life.

(e) Illness or delinquency in any of the family may affect the child by developing similar symptoms or traits, or result in his being deprived, taunted or shunned.

TREATMENT

(1) Manipulation of environment is the first step where possible.

(a) First try to assign easier tasks and keep goals within the child's ability. A special class in school, lower demands for high grades or acceptance of "fair" instead of "perfect" conduct.

(b) Education of parents, siblings and teachers to understand that the child has rights, feelings and desires, often equal in importance to those in an adult. Consideration, respect and polite behavior is due him as well as expected of him. Misbehavior is frequently the only mode of expression the child has learned. It is a sign of poor adjustment, not a measure of badness.

(2) Therapeutic discussions with patient.

(a) Attempt to understand him. Be friendly. Let him express his opinions.

(b) Help the child to understand himself by gradually (and without criticism) pointing out behavior traits.

(c) With the aggressive child, try to have him appreciate the feelings of the victims of his aggression.

(d) Encourage the submissive child to participate in activities. Tell him that others feel shy also. Praise each accomplishment liberally. This is also of value for the dull child.

(e) Sexual misbehavior is often a result of curiosity and experimentation due to lack of information. Sexual conflicts sometimes develop from incorrect knowledge obtained from poorly informed persons. The answer: simple, honest sex education, scaled to the child's level of understanding.

Any physician willing to follow an outline as above, and willing to devote some real energy and time, should be able to help "readjust" many of the children who need such attention. Should he fail to achieve adequate results, he can be assured that he has paved the way toward subsequent specialized psychiatric therapy.

332 Springfield Avenue

BACTERIAL ALLERGY

Bacterial allergy has recently been studied by incubating the white blood cells of the patient with filtrates of pure cultures of various organisms. In this study, Drs. H. Blatt and F. A. Nantz of Cincinnati determined* that the proportion of white cells destroyed in such a culture reflected the subject's sensitivity to the offending bacteria. Treatment consisted of desensitizing the patient to organisms to which he was found sensitive. This method has been applied most successfully to patients with vasomotor rhinitis, asthma, rheumatic fever and rheumatoid arthritis.

*At the 1951 annual meeting of the American College of Allergists.

ALLERGY AND EPILEPSY

Drs. S. C. Dees and H. Lowenbach, of Duke University, recently evaluated* the relationship of epilepsy and allergy. Allergy appears as an etiologic factor in a small proportion of cases. Of 37 children, 22 were found to have additional non-convulsive manifestations of allergy, such as hay-fever, asthma, or eczema. Anti-allergy therapy was found to be an important adjunct to the management of these epileptic children. A family history of allergy in any epileptic child should be considered an indication for an allergic study as part of the management of the case.

*At the 1951 congress of the American College of Allergists.

RADIOISOTOPES IN MEDICINE †

HENRY D. DIAMOND, M.D., New York, N. Y.

Advances in nuclear physics have made it possible to produce, by nuclear bombardment, a radioactive isotope of every known stable chemical element. Some of these radioisotopes because of certain limiting features are physicochemical oddities only; others are but of academic interest. A few are of immediate applicability to the study of human normal and abnormal physiology, and to the treatment of disease. Since our major interests at the Memorial Center are focussed on the study and treatment of malignant neoplastic diseases, I shall limit this discussion exclusively to two radioactive isotopes, namely, radioactive iodine (I^{131}) and radioactive phosphorus (P^{33}), which have manifested reasonable evidence suggesting their usefulness as diagnostic or therapeutic tools, in the study and treatment of certain neoplastic diseases.

THE PHYSICS OF ISOTOPES*

To understand how radioisotopes exert their therapeutic effects, certain fundamental knowledge of nuclear physics and the biologic effects of ionizing radiations is necessary. Radioisotopes may be produced either in particle accelerators, such as cyclotrons, or in a uranium chain reacting pile. In the latter, radioactive isotopes may be formed through two processes; either by the fission of U235 nuclei, or by neutron absorption by non-fissionable nuclei.

Certain bio-physical terms used frequently in any discussion of radioactivity had best be defined at this time also. *Half-life* is that period of time in which half the radioactivity originally associated with an isotope will have been dissipated through radioactive decay. A *millicurie* is that unit of radioactivity designated as 3.7×10^7 disintegrations per second. *Specific activity* is the amount of radioactivity of the isotope per unit weight of the element. The term *carrier-free* means undiluted with stable isotopes of the element, other than those which are already present as impurities in the target material. Radioactive isotopes differ from stable isotopes of the same element only in their atomic weight. Almost all artificially produced radioisotopes used in medical experiments and treatment emit beta particles, and some emit gamma rays also. These characteristics feature their types of radiation energy, and these radiations are end phenomena of the instability of the atomic nucleus of a radioactive atom as this nucleus liquidates itself by spontaneous nuclear transformation in an attempt to achieve stability.

† Read May 14, 1951, at the 185th Annual Meeting of The Medical Society of N. J. This work is from the Memorial Center for Cancer and Allied Diseases.

* For descriptive purposes, oversimplification of radiation physics is inevitable in this paper.

A. RADIOACTIVE IODINE (I^{131})

1. *Production and Biophysical Properties*

At first I^{131} was produced in cyclotrons. Since supplies of pure I^{131} have become available from the nuclear reactor at Oak Ridge, this isotope has been used almost exclusively in clinical investigation and therapeutics. Hamilton[1] in 1938, reported on the absorption rates of I^{131} in man. Hertz[2] and Hamilton and Soley[3] in 1941, were the first to treat patients with hyperthyroidism with I^{131}. Since that time a considerable number of patients with Graves disease and a smaller number with unresectable and metastatic cancer of the thyroid have been treated with this agent.

Radioactive iodine as I^{131} is the iodine isotope in almost exclusive use. It is produced in the pile by neutron bombardment of stable tellurium.[130] The half-life of I^{131} is 8 days. It is carrier-free in sodium iodide solution containing up to 5 millicuries of I^{131} per milliliter of solution. It is a beta and gamma emitter. The specific activity of this isotope preparation is high.

2. *Diagnosis and Therapy of Thyroid Cancer with* I^{131}

Realizing the remarkable avidity of the normal thyroid gland for iodine, Hamilton, Soley and Eichorn[9] made the first attempts to concentrate radioactive iodine in cancer of the thyroid. Keston *et al.*[10] in 1942 were successful in demonstrating selective uptake of I^{131} by thyroid cancer. Seidlin, Marinelli and Oshry[4] in 1946, reported a case in which they observed selective concentration of iodine by metastases of thyroid cancer, and also unequivocal improvement in the patient's condition as a result of the administration of I^{131} in therapeutic amounts.

At the Memorial Center, Trunnell[7] and his associates have reported on the treatment of metastatic thyroid cancer with I^{131} in 25 patients, all proved by biopsy, and all with metas-

tases beyond the confines of the neck, i.e. pulmonary and skeletal metastases.

Since only a few histologic types of thyroid cancer will concentrate I^{131}, methods have been devised to alter the function of such metastases so as to enhance the quantity of uptake. I^{131} should be reserved for the treatment of advanced metastatic thyroid cancer only. No compromise with cure should be made in the case of primary thyroid cancer limited to the neck and without metastases beyond the confines of the neck, by employing any but the established method of radical surgical extirpation.

One important way to attempt to stimulate metastatic thyroid cancer to assume iodine concentrating function is to perform total thyroidectomy. The latter is achieved best by total surgical extirpation of the thyroid gland. Its total destruction may be achieved at times by a therapeutic dose of I^{131} if much normal thyroid gland tissue still exists. As of November 1949, Trunnell[7] and his co-workers at the Memorial Center, using the technic of total removal of the normal thyroid (or total destruction of it) in 23 patients with metastatic thyroid cancer, showed that in 12 patients, one or more metastases concentrated considerably more iodine than before removal or destruction of the normal thyroid.

Another method for engendering uptake of such metastases of I^{131} is stimulation of these metastases in the absence of the normal thyroid (total ablation or removal previously performed) by thyrotrophic hormone. In 3 of 6 patients whose normal thyroid had been removed and thereby eliminated as a competitor for I^{131}, Trunnell[7] *et al.* observed that treatment with thyroid stimulating hormone (30 milligrams daily for five or more days) resulted in an increased avidity for I^{131}.

Still a third method currently employed to achieve enhanced I^{131} pick-up by metastatic thyroid cancer tissue is to administer goitrogenic drugs (such as thiouracil or propylthiouracil). Trunnell and his group[7] reported that 10 thyroidectomized patients whose metastases had acquired avidity for I^{131} were treated for varying periods of time with thiouracil or propylthiouracil. After stopping the administration of these drugs, in 7 of the 10 patients, the metastatic lesions revealed a marked increase in their iodine collecting capacity.

These studies of methods of increasing the iodine-collecting capacities of metastatic thyroid cancer have been of capital significance and practical importance for several reasons. They demonstrated the localization of I^{131} in therapeutic amounts in tumors which otherwise were untreatable by this agent. These investigations revealed important facts concerning the physiology of thyroid cancers; and also, that certain such cancers of the thyroid were made capable of responding to the body's need for thyroid hormone by taking on the function of the parent organ itself. Such cancers were noted also to be responsive to thyrotrophic hormone, and suggest that they were perhaps not totally autonomous, but alterable by specific physiologic mechanisms.

3. Treatment of Metastatic Thyroid Cancer with I^{131}

Prior to active treatment, a preliminary tracer study** with I^{131} is performed to determine whether and to what extent the lesions take up the iodine. Following this procedure, if the metastases are demonstrated to have concentrated the isotope as measured by Geiger counting, serum protein bound iodine levels, and amount of urinary excretion of the isotope per unit of time, treatment may be undertaken. The isotope is administered orally. The dosage in a single administration usually varies from 50 to 200 millicurie. In the series of Trunnell and his colleagues[7] 9 patients having functional metastases were treated with therapeutic doses of I^{131}; the cumulative dosage varying between 144 and 906 millicurie. Although all showed evidence of viable cancer at the time of the report, four patients did have definite improvement as noted by distinct decreases in tumor size and by unequivocal histologic evidence of tumor destruction.

Intensive therapy with radioiodine may cause bone marrow depression and, consequently, suppression of hematopoeisis. Amenorrhea may occur in formerly menstruating females. As a result of rapid destruction and dissolution of normal follicular and colloidal

** Dose usually from 50 to 100 microcuries.

elements in the thyroid gland a rapid outpouring of thyroid hormone may occur with resultant clinical hyperthyroidism and thyrotoxicosis.[7]

B. RADIOACTIVE PHOSPHORUS (P^{32})

1. Production and Biophysical Properties

As with I^{131}, radiophosphorus was produced at first by cyclotrons, but for the past few years, P^{32} has been made available from nuclear pile reactors of the Atomic Energy Commission. Radiophosphorus as P^{32} is the principal form of the isotope in medical investigation and therapy at this time. It is supplied as a solution of sodium hydrogen phosphate or phosphoric acid; is of high specific activity, being in the order of one millicurie of P^{32} for 0.05 milligrams of P^{31}, and is relatively carrier-free. It is produced in the pile by neutron irradiation of elemental sulfur. In the cyclotron it has been produced by bombardment of stable red phosphorus. The half-life of P^{32} is 14.3 days, and it is a pure beta particle emitter with an energy maximum of 1.71 million electron volts. It penetrates tissue to an average of two to three millimeters (half-value layer), and it is taken up by tissue with a high metabolic turn-over of phosphorus. Unfortunately, one of the debits of P^{32} is that there is no great preferential uptake of it by specific tissue as is the case of the thyroid gland for I^{131}. P^{32} is a general cell poison. Bone and bone marrow, and the reticulo-endothelial system, however, show some increased avidity for P^{32}, and for these reasons the agent finds a place in the treatment of certain blood disorders. The agent may be administered intravenously or orally.

2. Treatment of Blood Dyscrasias with P^{32}

The literature is replete with documentation of the use of P^{32} in the treatment of certain hematological diseases such as polycythemia vera, chronic myeloid leukemia, and chronic lymphatic leukemia. (See footnotes 13 to 20.)

(a) POLYCYTHEMIA VERA

Almost all clinics using P^{32} in the therapy of polycythemia vera have been enthusiastic about how well it controls this disease. Both intermittent fractionated dosage as well as single total dose methods have been used by different workers. Dosage calculations are based usually upon blood volume, hematocrit, hemoglobin levels, and degree of bone marrow hyperplasia. At our own institution, we employ a total dosage regimen calculated to deliver 0.1 millicurie of P^{32} per kilogram of body weight, dividing this dose over several days. For example, a 70 kilogram patient would receive one millicurie daily for seven days. Radiophosphorus[14] is considered the agent of choice in the treatment of polycythemia vera[19] at this time.

(b) CHRONIC MYELOID LEUKEMIA

As a source of internal whole body radiation, P^{32} has become a forceful therapeutic tool in the treatment of chronic myeloid leukemia. We have reported[20] a ten year experience with P^{32} in the treatment of this disease with prolongation of *comfortable* survival. We use the same dosage schedule as delineated in the discussion of polycythemia vera, and administered the P^{32} orally. Our five year survival rate from the time of onset of the disease is 22 per cent. We treated 59 unselected patients[20] with P^{32}. It is our contention[20] that the ideal chronic myeloid leukemic patient to treat with P^{32} is the one who exhibits hematologic evidence of the disease only, or added minimal splenic enlargement. Toxicity as manifest by radiation illness was found to occur minimally, 6.8 per cent. A single patient, early in our study, developed aplastic anemia from overwhelming bone marrow depression. Our experience[20] suggests P^{32} as an advantageous adjunct to judiciously applied local external roentgen ray irradiation.

(c) CHRONIC LYMPHATIC LEUKEMIA

Although P^{32} does not enjoy the popularity in the treatment of chronic lymphatic leukemia that it does in chronic myeloid leukemia, we believe, as do others,[17] that it has a definite place in the treatment of this disease.

In a previous paper,[18] we reported on 51 chronic lymphatic leukemia patients who received P^{32} orally in a divided total dose technic and demonstrated a 24.5 per cent five-year survival rate from the time of onset of the disease. Definite prolongation of *comfortable* survival was achieved by P^{32} in this group of

51 patients. Toxicity as manifest by aplastic anemia and radiation illness was minimal and insignificant.

In general, P^{32} has shown little subjective and objective effect on patients afflicted with lymphosarcoma, reticulum cell sarcoma, mycosis fungoides, Hodgkin's disease, and plasma cell myeloma.

SUMMARY

I have summarized, in general, the experience of others, and in some detail, our own experience at the Memorial Center with the use of radioiodine and radiophosphorus in the study and treatment of certain malignant diseases.

1. In 4 of 9 patients subjected to intensive treatment of metastatic thyroid cancer with I^{131}, definite clinical improvement occurred.

2. Three interesting means of enhancing I^{131} uptake by previously recalcitrant metastatic thyroid cancers have been elucidated.

3. We have learned from these studies that particular metastatic thyroid cancers are capable of response to thyrotrophic hormone, total thyroidectomy or thyroid destruction, and to thiouracil and propylthiouracil.

4. The foregoing data suggests that metastatic thyroid cancers are not autonomous completely, but are alterable by select mechanisms of normal physiology.

5. Radiophosphorus is the agent of choice in the treatment of polycythemia vera at the present time.

6. *Comfortable* survival in chronic myeloid and chronic lymphatic leukemia patients is increased by the use of P^{32}.

7. Toxicity from P^{32} as manifest by radiation illness and the production of aplastic anemia is minimal and insignificant when the agents are used judiciously.

8. Both I^{131} and P^{32} are valuable additions to the medical sciences in the study of the pathologic-physiology and treatment of certain malignant neoplastic diseases.

444 East 68th Street

A list of 20 citations appears in the author's reprints.

WHY DO YOUNG PEOPLE STUDY MEDICINE?

Self-dedication to human welfare is the dominant motive driving a large proportion of medical students to their arduous discipline, a survey of the current freshmen at the University of Illinois College of Medicine indicates. The study, covering the 166 students accepted out of 544 applicants, was published in the January 1951 issue of the *Illinois Medical Journal*. It was compiled by Dr. Carroll L. Birch.

Dr. Birch found that 53 of the 166 specifically listed altruistic, humanitarian motives for entering medicine, such as desire to help the less fortunate, to better the world, to conquer disease or to decrease suffering. Some quotations:

"Medicine to me is far more than a mere occupation. It is a life devoted to the service of mankind."

"My foremost efforts will be put forth to free humanity from the discomforts and pains that now plague it."

"If I could get broken-down trucks to run again, how much more wonderful it will be to repair and make healthy the broken-down human body."

Interest in science inspired 42 applicants. This developed chiefly through biology courses in high school or college.

Another 27 had just always "known since childhood" that they wanted to be doctors.

Admiration for the family doctor or for a physician relative moved 28 more. This group included a man moved by such heroic figures as Albert Schweitzer, famous medical missionary, and another inspired by the stories of a medical technician he once "dated". Thirteen had watched parents or friends through an illness and turned to medicine through the sympathy thus aroused.

Ten were motivated by religion, with some recording a divine call to the life of the medical missionary.

Six recorded scientific curiosity.

Twelve listed desire to make money and eight coveted the prestige of the physician. Even these last revealed a high concept of the healing arts: "The doctor is a respected man with an infallible character, scrupulous morals and high ideals." "An M.D. has security, happiness and contributes to society."

Some students mentioned more than one motive.

BLOOD TRANSFUSION IN INFANTS

T. K. RATHMELL, M.D., and GEORGE MORA, M.D., Trenton, N. J.

The profession seems hesitant about fully utilizing blood transfusion as a therapeutic measure in infancy. This reticence stems from several erroneous concepts (which the profession has accepted) and poor training in this field which the usual internship provides.

Specifically, when transfusion is considered by the pediatrician, he immediately visualizes such procedures as fontanelle or jugular injections and bone marrow infusion. It is not our purpose to detract from the established value of these procedures when properly utilized; but we do assert that transfusion can be accomplished in infants without recourse to these formidable procedures.

The charts illustrate some of the venous channels which can be utilized by the trained physician for blood transfusion in infants. Use of these channels should take precedence, in transfusing infants, over fontanelle, jugular, and bone marrow routes.

Figure I illustrates the anatomic data for locating the pre-auricular branch of the superficial temporal vein. Figure II illustrates the dorsal metacarpal veins. These channels are usually constant and bilateral, providing the clinician with four chances to complete the infusion successfully.

All physicians should be familiar with venipuncture. It is wrong to canalize a vein by simply plunging in a needle. The needle should be attached to a syringe and the syringe is used to determine when the needle has reached an intra-luminal location.

Fundamental technical considerations involve the following:

1. When a 25-gauge needle is used, do not interpose a filter in the infusion system.
2. Sterile vaseline, applied to the piston of a 50 milliliter syringe, exerts no deleterious effects on the citrated blood and facilitates the injection of the blood under mild but controlled pressure.[1]
3. A short section of tubing intervening between the syringe and intravenous needle allows freedom of movement to some degree on the part of both the patient and the transfusionist.

1. Rathmell, T. K., and Crocker, W. J.: Journal of Laboratory and Clinical Medicine, 19:1206, August 1934.

Figure I. (1) Superficial temporal; (2) external jugular; (3) internal jugular; (4) interjugular communication.

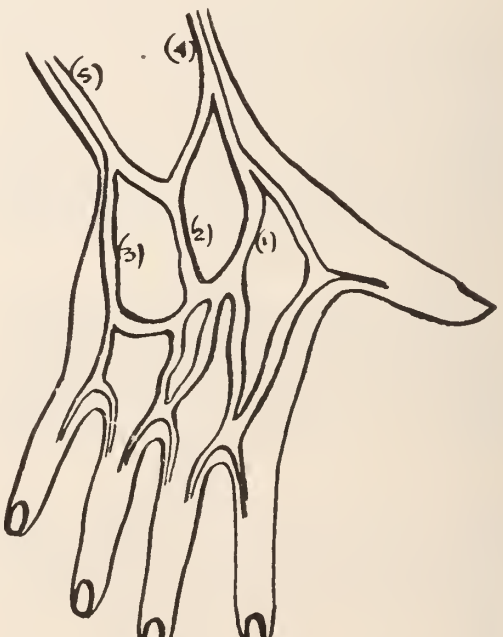


Figure II. (1, 2, 3) Dorsal metacarpals; (4) cephalic; (5) basilic.

4. Recommended venous channels for infusion are readily accessible to the operator with the patient prepared by the pediatric restraining sheet.
5. Fundamental principles of antisepsis must be maintained.
6. Compatibility of blood is essential.

Most physicians tend to prescribe blood in excess dosage. We follow the general rule that infants will tolerate blood in doses up to 15 milliliters per kilogram of body weight.[2] However, the volume infused should be well below maximum tolerance as calculated and should be established after consideration of the infant's total body weight and stature. If the child is weighed in kilograms, the blood volume maximum is simply calculated: 15 milliliters per kilogram. Thus, for a 3 kilogram infant, the maximum tolerance would be 3 times 15 or 45 milliliters of blood. Physicians who use pounds rather than kilograms for weighing patients will find the following table helpful:

Body Weight in pounds	Maximum blood dosage in milliliters
2	14
4	28
8	56
10	70
15	105
20	140
25	170

An example of an actual case illustrating the desirability of keeping within tolerance limits and result attained follows:

Age	Weight	Dose		Gms. Hgb.	R.B.C.
		Tolerated	Given		
5 mos.	12.5 lb.	80 ml.	50 ml.	5	3.39 million (Before)
			50 ml.	9	4.68 million (After)

Over-dosage depresses rather than stimulates hematopoiesis.

How often or how many times should a patient be transfused? In general, if one is not dealing with massive or repeated hemorrhage, one may give blood within the calculated tolerated dose. If repeated transfusions are contemplated, these should follow either after a 24-hour interval or within the ensuing 72 hours, rather than permitting an interval of 10 to 14 days to elapse before re-infusion. The controlling factor in cases of this type (hypochromic anemias) should be an estimation of the hemoglobin levels of the case under consideration.

SUMMARY

1. Anatomic, dosage and technical factors pertaining to transfusion in infancy have been reviewed.

2. Use of the superficial temporal veins (pre-auricular branch) and of the dorsal veins (metacarpal) of the hand facilitates transfusion. These routes are preferred to fontanelle, jugular or bone marrow routes in infancy.

446 Bellevue Avenue

$100 PRIZE FOR ORTHOPEDIC PAPER

The New Jersey Orthopedic Society announces an award for the best paper on any orthopedic (or closely related) subject, written by an intern or resident in any hospital in New Jersey. The award includes a $100 cash prize and an invitation to read the paper at the spring meeting of New Jersey Orthopedic Society next year. Deadline is January 15, 1952. For further details, write to Dr. Philip Willner at 852 South Eleventh Street, Newark 8, N. J.

TRUDEAU SOCIETY MEETING

The annual meeting of the Eastern Section of the American Trudeau Society will be held Friday and Saturday, November 2 and 3, at Hartford, Connecticut. Headquarters for the meeting will be the Hotel Bond in that city. Members of the Society who wish to present papers are urged to communicate promptly with Dr. Kirby Howlett, Laurel Heights Sanatorium, Shelton, Conn.

2. Kracke, R. R.: *Diseases of the Blood.* Philadelphia, Lippincott, 1941. (2d edition). See page 577 of this book.

CHRONIC NONSPECIFIC PROSTATITIS*

HERBERT M. ILL, M.D., Newark, N. J.

Chronic prostatitis is a much neglected disease. It is often missed by the general practitioner, by the internist and by the surgeon. It may be ignored by the busy urologist whose time is taken up with more acute or more "surgical" conditions. It is a disease in which the secretion expressed from the prostate contains varying amounts of pus. Streptococci and staphylococci predominate. In most cases, no history of definite onset can be obtained.

CAUSES

Chronic nonspecific prostatitis is usually due to one of six causes: (1) incomplete ejaculation; (2) persistent congestion; (3) periodic congestion; (4) secondary infection of the prostate; (5) focal infection; (6) ascending infection from urine.

(1) *Incomplete ejaculation* is usually the result of masturbation, withdrawal or failure to empty the prostate and vesicles completely during intercourse.

(2) *Persistent congestion* as in prolonged erection from sexual stimulation without ejaculation, such as is experienced in "petting parties" and in prolonged holding back of ejaculation during coitus.

(3) *Congestion* as is found in the youth who completes the sexual act many times in one night periodically.

During congestion, infective organisms conveyed through the blood stream or ascending from the urethra, must be present to change this congested gland into an infected one.

(4) *Secondary infections* following gonorrheal prostatitis. This is becoming less and less of a factor due to antibiotics.

(5) *Focus of infection* in infected teeth, sinuses and gastro-intestinal tract, et cetera.

(6) *Ascending infection* from infected urine particularly in the presence of stricture of the urethra and congenitally strictured meatus.

I believe that prevention of conception or abnormal sexual life are directly responsible for most of the cases of this disease.

SYMPTOMS

Symptoms of chronic prostatitis fall into five groups:

(1) Mental and emotional.
(2) Pain and discomfort.
(3) Abnormalities in micturition.
(4) Impotence, partial or complete.
(5) Sterility.

(1) *Emotional:* The patient may be lethargic, listless and unable to concentrate. He finds it difficult to hold a position and apparently cares less. These symptoms respond very rapidly to treatment but the infection must be completely eradicated to prevent recurrences.

(2) *Pain and discomfort* are experienced by most chronic prostatic patients. The most common are: chronic low back and perineal and inguinal pains. Arthritis, bursitis, and myositis, generalized or localized, acute or chronic, and iritis, are frequent symptoms and complications. Pain and burning at the end of the penis and pain in the testicles and epididymi are also common findings. Many eye specialists consider the prostate gland the most common cause of iritis. Frequently the prostate is the cause of painful ejaculation followed also by pain lasting as often as two or three days. Renal colic is occasionally also observed. Acute epididymitis is not uncommon following chronic prostatis.

Case 1: A seventeen year old boy had a severe rheumatic involvement of his right knee, right hip and left elbow of three to four months' duration. Sedimentation rate was greatly elevated. Urine showed a few pus cells. He complained of frequency and burning on urination and gave a history of excessive masturbation. Rectal examination showed his prostate to be very soft and enlarged to twice its normal size. The expressed secretion showed thick pus. After four months of treatment, his joint symptoms entirely disappeared and the secretion from his prostate was almost free of pus.

Case 2: A young man eighteen years of age was referred to my clinic with a history of physical weakness and frequency of urination and perineal pain. He also gave a history of excessive masturbation. Blood pressure was 180/100. Urine showed a three plus albumen with many hyaline and finely granular casts and with some pus cells. By rectal examination it was impossible to differentiate his

* Read before the Postgraduate Seminar of the New York Urological Society of the American Urological Association, November 9, 1950.

extremely soft prostate from the other soft parts, but massage brought forth thick pus. He received weekly treatment over a period of six years. During this time, his prostate gradually returned to normal and his urine became free of albumen and casts. Blood pressure when last taken was 130/90. One year after treatment was started he returned to work. Shortly before his treatment was discontinued, he married. The last I heard of him, he had entered the armed services.

(3) *Abnormalities in micturition* include urethral discharge, "morning drop", dribbling at the end of urination nocturia, enuresis and initial hematuria. All of these symptoms are seen as the result of chronic prostatitis. Nonspecific urethritis and bleeding from the prostatic urethra are practically always results of an infected prostate.

The cause (prostatitis) rather than the result (the discharge) should be treated. Usually the resulting discharge will disappear by itself. The treatment of the non-specific urethritis alone is not enough.

Blood in the ejaculate following intercourse, may be in the prostatic secretion or in the seminal fluid or both. This blood is the result of excessive inflammation. The infection starts in the prostate which in turn infects the seminal vesicles.

Residual urine is often seen in conjunction with hypertrophy, particularly in older men. If men over forty-five would consult the urologist with their symptoms of hesitancy, dribbling, and the other early indications of a hypertrophied prostate including residual urine, we would find many of them having boggy, large glands. Early treatment usually corrects the symptoms and findings. Once acute retention develops and is not corrected by catheterization, we must resort to surgery. The passage of a metal instrument, such as a cystoscope, not infrequently produces complete retention.

(4) *Impotence:* Probably the most grateful patients I have ever had are those who have been cured of complete impotence by prostatic treatment. The prostate in these cases is *always* infected. Proper urologic, with some psychologic treatment, plus assurance of a cure has given excellent results. This is especially true if the patient is married. Results with unmarried men are discouraging. Partial impotence (infrequent and unsatisfactory coitus) is also greatly helped by prostatic treatment even without the aid of testosterone.

(5) *Sterility:* Patients with infected prostates and poor sperm counts are benefitted only very occasionally (or not at all) by treatment of the prostate. When the sperm count is normal we are occasionally able to bring forth the desired pregnancy. Here is the report of a case where treatment of the prostate unquestionably was responsible for the long awaited pregnancy.

Case 3: A man had been married for ten years. The couple was childless. The wife had had many treatments both locally and generally after the husband's sperm count had been reported normal. They had given up all hopes of ever having children. About this time he complained of groin pains and was referred to me for examination. His prostate was tender and soft. The expressed secretion showed thirty per cent pus. After fifteen massages, his wife became pregnant. As is often the case, treatments were not continued long enough for a cure. Two years later he returned, not because of symptoms of pain as before, but because he wanted a second child. Again a few treatments produced the desired results. Believe it or not, their third child was the result of a similar course of treatment.

Case 4: A man who had experienced eighteen years of unproductive married life impregnated his wife for the first time after prostatic treatment. Of course one must always keep in mind the adage: "Lucky is the child who knows his own father".

DIAGNOSIS

To make a diagnosis of chronic prostatitis, examination of a "two glass specimen" (the first voiding in the morning) should be made. This means the first specimen of the initial voiding and the second specimen toward the end of the same voiding. Pus in the first glass and clear urine in the second indicates a urethritis which is almost always secondary to a prostatitis. Digital examination of the prostate is the most important part of the examination and three things are noted:

(1) *Consistency.* The normal prostate is firm but not hard and has no nodules and is movable. A soft or partly soft gland is pathological.

(2) *Discomfort* is normal; but pain on massage is definitely abnormal.

(3) *Examination of the expressed secretion* is the most important of these tests. A negative diag-

nosis of chronic prostatitis should never be made on examination of the first expressed secretion. If normal, two (and possibly three) expressed secretions taken at weekly intervals should be normal before classifying the gland as "not pathological". Blood upon light massage is usually in itself a sign of a severely inflamed gland.

TREATMENT

The treatment of the chronically infected prostate gland may be divided into two parts: (1) instructions to the patient: (2) treatment by the doctor.

(1) *Directions to the patient* include abstinence from alcohol and all spices. He must be reminded that many soft drinks and also cigarets are often highly spiced. Automobile riding (except for short trips) is forbidden. Intercourse should be limited to once in two to three weeks, and without the use of rubber condoms. To prevent conception it is best for the wife to wear a diaphragm; and second best for the husband to use a loose fitting fish skin condom. Cane seated desk chairs should be used when prolonged sitting is necessary. Rubber and other poorly ventilated seats should be avoided. The patient should take at least one or two hot sitz baths in no more than three inches of water while submerged, for fifteen to twenty minutes at a time. Hot water should be continually added and the cooler water allowed to run off to keep the bath as hot as tolerable. It is advisable to raise the scrotum and swish the hot water against the perineum. For extreme pain in the perineum, hot rectal irrigations while in the sitting position usually give immediate relief. X-rays and vitality tests of the teeth are ordered and the patient is returned to his family doctor for survey for other possible foci of infection.

(2) *Local treatment* includes prostatic massage twice weekly for four to six weeks and weekly massage until the smear is negative. The prostatic ducts are in the posterior part of the prostatic urethra. The lateral and medial lobes are those containing the glands. Massage, therefore, should be started at the periphery and directed to the area of the verumontanum. Massage back and forth from left to right should *not* be practiced. Massage, at first should be very gentle, and may be increased as weeks go by. Massage is usually not satisfactory unless secretion is obtained. It is important to empty the gland as completely as possible. A number 26 French sound should be passed on all patients to rule out possible stricture.

Cystoscopic examination is occasionally necessary. Many urologists consider this important in all cases. Blood in the prostatic fluid indicates a severely but not acutely infected gland. This should not interfere with the treatment, but it does indicate that more mild massage should be given the next few times.

If urethritis is present, sulfadiazine, aureomycin, chloromycetin, et cetera, often temporarily cure this secondary infection. None of these drugs *cure* prostatitis, though they may favorably influence results of the prostatitis. Most of the patients who have been sent to me by other doctors have all had courses of antibiotics to no avail. Some urologists give antibiotics during the massage period.

Penicillin was first used for prostatis while I was on duty at a U. S. Naval Hospital in Farragut, Idaho. I had one hundred cases of various durations of gonorrheal prostatitis. Fifty per cent of our acute cases had gonorrheal prostatitis. Five doses of 10,000 units each, (50,000 units in all) were given each patient every three hours. In only two cases was further administration necessary to eradicate the gonococci from the prostate. All of these patients had positive cultures of gonococci before the administration of the 50,000 units of penicillin, and negative cultures three or four days after stopping the drug. The pus in fresh cases was reduced from forty or fifty per cent before penicillin, to a negative smear three or four days later. In those who had long standing gonorrheal infection, six weeks and longer, the amount of pus was reduced practically not at all. Any secondary infection with streptococcus, staphylococcus or colon bacillus, which had become predominant, was not helped at all. It was interesting to observe the degree of improvement after penicillin therapy as found in the number of pus cells in these patients between the fresh cases and the old cases. As time went on, the pus produced by the gonococci was replaced gradually by the secondary infection, thereby keeping up the percentage of pus, to a degree.

At one hospital in the South Pacific, we had a number of staphylococcus urethritis patients with prostatitis who were not benefitted by large doses of penicillin. Some months later on another island, because of glowing accounts of penicillin "cures" of chronic prostatitis, I was ordered to give large doses

for prolonged periods, sometimes three to four weeks, to a series of more severe cases. There was no improvement what-so-ever in the percentage of pus present.

Men with enlarged, soft prostates should not be operated upon in the presence of residual urine without first massaging the prostate six to eight times. If the residual urine is reduced in amount, massage should be continued, provided the condition continues to improve and residual urine finally eliminated. Many such patients have thus been permanently spared surgery.

In the treatment of total impotence it is important that the patient be married, and have normal sexual organs. A cooperative and understanding wife is essential. Failures are the rule in the treatment of unmarried men. The treatment of this condition is as before with the exception that massage must be more vigorous. A certain degree of pain is psychologically important. He must be instructed *not* to attempt intercourse even though he does develop an erection until permission is granted by the doctor. Too early an attempt often meets with failure and tremendous discouragement. All of these patients have infected prostates. As the infection disappears, erections gradually develop and a high ratio of cures is obtained.

Case 5: In my early years of practice I had a patient fifty years of age with a low degree of intelligence who complained that he had no sexual life for twenty years. Rather vigorous massage, after eight treatments, restored his normal sexual life.

Case 6: I have recently treated another man for the third time in twenty years for inability to have an erection. Fifteen to twenty treatments were necessary to restore sexual life each time. He is now again a normal man.

Case 7: Many men who marry late in life, having never experienced normal coitus are impotent. I had a patient who masturbated twice a day for thirty-five years and who had been treated with testosterone, had electric shocks, insulin shocks, and many other types of treatment without success. His psychiatrist became discouraged and finally told his wife to "get rid of him". This advice was not well received. This patient had normal genitalia with a very soft, extremely movable prostate. The expressed secretion showed forty per cent pus. After ten massages (following the instructions prescribed above) his smear showed less than ten per cent pus and he, for the first time in his life, was able to start and complete the sexual act.

15 Washington Street

FIFTY YEARS AGO

FROM A PAPER ON EPILEPSY DELIVERED AT THE 1899 MEETING OF THE MEDICAL SOCIETY OF NEW JERSEY: "One line of treatment for epilepsy has not yet been mentioned, and yet is an interesting one. I refer to the correction of errors of refraction of the eye on which the convulsions may be dependent. One patient, a mechanic, had epilepsy of the graver type. I tried every possible means. I had sent him to New York specialists who had treated him by medicinal means and by diet. He got so bad that he had 15 attacks a day. An oculist found he was suffering from eye strain. Eye glasses were adjusted; the convulsions ceased, and now—eight years later—he is still well. We should bear in mind this one phase of the etiology of epilepsy and send obstinate cases to the specialist who is competent to treat eye strain." E. W. Hedges, M.D., Plainfield, N. J. (Page 109 of 1899 *Transactions.)*

ONE HUNDRED YEARS AGO

1849 REPORT FROM THE MIDDLE DISTRICT OF NEW JERSEY: "The peculiarities of epidemic dysentery this summer were the typhoid character of the disease, tendency to sink in the early stages, bleeding being permissible in only one case which came under this reporter's notice. The remedies prescribed by practitioners were used with various success, no one appearing to possess a marked superiority: Dover's powders, calomel, laxatives, astringents, blisters and camphor. Almost all the fatal cases I met with could be attributed to the debilitating, drastic and lacerating effects of purges used by patients before applying for medical aid. I could trace with certainty the fatal character of two cases to the use of Wright's Indian vegetable pills, which are much in use as a purge in New Jersey. . ." (Page 436 of 1849 *Transactions.)*

STATE ACTIVITIES

GRADUATE WEEK

Academy of Medicine of Northern New Jersey

October 29 to November 2

PARTICIPATING AGENCIES

1. St. Barnabas Hospital
2. Veterans Administration Hospital, Lyons
3. St. Michael's Hospital
4. Newark City Hospital
5. Beth Israel Hospital
6. American Cancer Society of New Jersey
7. New Jersey Heart Association
8. Essex County Heart Association
9. New Jersey Neuro-Psychiatric Association
10. New Jersey Diabetic Association

GENERAL PROGRAM OF GRADUATE WEEK

Panel Discussions, Case Presentations, Clinics, Scientific Papers, and Evening Lectures

October 29—Dental Day at St. Barnabas Hospital

Evening Lecture:

16th Annual Martland Lecture at the Academy of Medicine

October 30—Neuro-Psychiatric Day at Veterans Administration Hospital, Lyons

Evening Lectures at the Academy:

1. Psychotherapy in General Medicine—Dr. Paul H. Hoch
2. Mental Disease and Criminal Behavior—Dr. David Abrahamsen

October 31—Heart Day at St. Michael's Hospital, Newark

Evening Lecture at the Academy:

Causes and Management of Intractable Heart Failure—Dr. Louis Soloff

November 1—Internal Medicine Day at Newark City Hospital, Newark

Evening Lecture at the Academy:

Recent Developments in Pathological Physiology—Dr. Abraham Cantarow

November 2—Cancer Day at Beth Israel Hospital, Newark

Evening Lectures at the Academy:

1. Recent Advances in Cancer Research
2. Clinical Aspects of Gastro-Intestinal Malignancy

Monday, October 29—Dental Day

10 a.m. to 4:30 p.m.—St. Barnabas Hospital, Newark

8:45 p.m. to 11 p.m.—Academy of Medicine, Newark

10:00 a.m.-12:00 m.—Symposium on Caries: University Group

12:00 m.- 1:00 p.m.—Luncheon at St. Barnabas Hospital

1:30- 2:30 p.m.—Gingivectomy and Osseous Restoration—Dr. Saul Schluger

2:30- 3:30 p.m.—Vertical Dimension in Prosthetic Dentures—Dr. Max Pleasure and Dr. William Themann

3:30- 4:00 p.m.—Surgical Aspect of Cleft Palate—Dr. John Walker

4:00- 4:30 p.m.—Prosthetic Aspect of Abnormal Palate — Dr. Oscar Bater and Dr. Louis Saporita

6:30 p.m. —Martland Dinner at Essex House

8:45 p.m. —16th Annual Martland Lecture

Tuesday, October 30—Neuropsychiatric Day

10 a.m. to 5 p.m.—Veterans Administration Hospital, Lyons

8:45 p.m. to 11 p.m.—Academy of Medicine, Newark

10:00 a.m.-12:00 m.—New Technics in Electro-encephalography—
Dr. Eugene Revitch
Deep Insulin Coma Therapy —Dr. Paul Szafir
Differential Cerebro-Stimulation—Dr. Harry Berliner
Demonstration of Anti-Asbotomized Patients—
Dr. Ernest Graham
A Group PMR Approach to Chronic Psychiatric Patients —Dr. Richmond Beck and Staff
Demonstration of Anti-Asphyctic Ambulance—
Dr. Abraham Balter

12:00 m.- 2:30 p.m.—Luncheon and tour of Hospital (Luncheon can be made available in the hospital dining room for 75c per meal. Those who are interested in participating in the luncheon are urgently requested to submit their names prior to October 1 in order that adequate preparation can be made.)

2:30- 3:45 p.m.—Psychotherapy of Schizophrenia —Dr. Paul H. Hoch

3:45-5:00 p.m.—Evaluation of Treatment of Criminals—Dr. David Abrahamsen

6:30- 8:30 p.m.—Cocktails and Supper. Inclusive fee: $5.00. Sponsored by the New Jersey Neuro-Psychiatric Association at the Essex House in Newark

8:45 p.m.—At the Academy: Psychotherapy in General Medicine—Dr. Paul H. Hoch

9:30 p.m.—At the Academy: Mental Disease and Criminal Behavior—
Dr. David Abrahamsen

Wednesday, October 31—Heart Day

8 a.m. to 5 p.m.—St. Michael's Hospital, Newark

8:45 p.m. to 11 p.m.—Academy of Medicine, Newark

8:00-10:00 a.m.—Cardiac Surgery—Dr. Charles P. Bailey, Dr. Anthony Crecca and Dr. John McGuire.

9:00-10:00 a.m.—Demonstration Units
a. Rheumatic Fever Clinic—
Dr. William Rumsey
b. Angiocardiography—
Dr. Frank D. Carrigan
c. Catheterization — Dr. Allen Welkind and Dr. Henry Green
d. Pathology—
Dr. Salvatore J. Rose

10:00 a.m.-12:00 m.—Recent Advance in Rheumatic Fever—Dr. Currier McEwen

Lunch—As guests of St. Michael's Hospital Staff.

1:30- 5:00 p.m.—Weekly Interdepartmental Cardiac Conference — Dr. William Rumsey

3:00- 5:00 p.m.—Medical and Surgical Aspects of Cardiac Surgery—Dr. Nicholas A. Antonius

6:30 p.m. —Dinner at Essex House — New Jersey Heart Association

8:45 p.m. 1. Causes and Management of Intractable Heart Failure—
Dr. Louis Soloff
2. Present Status of Therapy in Hypertension—
Dr. George Perera

Thursday, November 1—Internal Medicine Day

9 a.m. to 5 p.m.—City Hospital, Newark

8:45 p.m. to 11 p.m.—Academy of Medicine, Newark

9:00- 9:20 a.m.—Artificial Kidney—
Dr. John B. Merrill

9:20- 9:40 a.m.—Diseases of the Gall Bladder—Drs. Jenkins, Pachard and Janda

9:40-10:00 a.m.—Diseases of Stomach and Duodenum — Drs. Jenkins, Pachard and Janda

10:00-11:30 a.m.—Case Presentations from the Medical Services—Dr. Irving Graef

11:30 a.m.-12:30 p.m.—Clinico-Pathological Conference—Dr. H. Martland and Staff

12:30- 1:30 p.m.—Lunch at the Nurses Home, City Hospital

2:00 p.m. —Hypertension—
Dr. Joseph Echikson

2:20 p.m. —Treatment of Peptic Ulcer—
Dr. H. B. Silberner

2:40 p.m. —Diagnosis and Therapy of Addison's Disease — Dr. Marvin C. Becker

3:00 p.m. —Essential Hypoglycemia—
Dr. Lewis Loeser

3:20 p.m. —Radioactive Iodine in the Treatment of Thyroid Diseases—
Dr. Sol Silver

4:00- 5:00 p.m.—Anti-Coagulant Therapy — Dr. Gerald Pratt and Dr. Raymond J. Boller

6:30- 7:30 p.m.—Dinner, sponsored by the New Jersey Diabetic Association

8:45 p.m. —Recent Developments in Pathological Physiology—
Dr. Abraham Cantarow

Friday, November 2—Cancer Day

9 a.m. to 5 p.m.—Beth Israel Hospital, Newark

8:45 p.m. to 11 p.m.—Academy of Medicine, Newark

9:00-11:00 a.m.—Operating Clinics by the Surgical Staff

9:00-11:00 a.m.—Movies in the auditorium:
1. Transthoracic Gastrectomy and Esophagectomy for Carcinoma of the Esophagus—
Dr. Richard H. Sweet
2. Abdomino-Perineal Resection for Carcinoma of Rectum—
Dr. Richard B. Cattell
3. Resection of Right Colon with End to End Anastomosis—
Dr. Arthur W. Allen

11:00 a.m.-12:30 p.m.—Clinico-Pathological Conference—Dr. Lester Goldman and Dr. M. Kannerstein

12:30- 1:30 p.m.—Luncheon at the Beth Israel Hospital

2:00- 3:00 p.m.—Radiologic Aspects of Gastric Malignancy—Dr. N. Furst

3:00- 4:00 p.m.—Clinical Application of Radio-Isotopes—Dr. Louis J. Levenson, Dr. Nathan Furst and Dr. Lester Goldman

4:00- 5:00 p.m.—Movies in the Beth Israel Hospital Auditorium

4. Anterior Resection of the Rectum — Dr. Laurence S. Fallis

5. Abdomino-Perineal Resection of the Rectum—Dr. Francis C. Newton, Dr. J. Englebert Dunphy

8:45-11:00 p.m.—Evening Lectures at the Academy of Medicine

1. Recent Advances in Cancer Research—
Dr. G. Burroughs Mider

2. Clinical Aspects of Gastro-Intestinal Malignancy—
Dr. Stanley Reimann

WITH NEW JERSEY MEDICAL AUTHORS

Compiled by Harold M. Goettel, Librarian, Academy of Medicine Library, Newark

Applebaum, Irving L. (Newark), and Thomas C. Rommer — Tetraethylammonium chloride: a potential hazard in the therapy of angina pectoris; case report. J. Newark Beth Israel Hosp., 1:223, July 1950.

Becker, Sylvia F. (Newark)—See Finkler, Rita S.

Berman, Robert (Newark)—X-ray as an aid in the diagnosis of placenta previa: report of two cases. J. Newark Beth Israel Hosp.. 1:135, April 1950.

Bernstein, Arthur (Newark), Emanuel Klosk, Franklin Simon, and Henry A. Brodkin—Large thymic tumor simulating pericardial effusion. Circulation, 3:508, April 1951.
See also * Parsonnet, Aaron E.

Block, Marcus T. (Newark)—Vitamin E therapy in malignant vascular and collagenous disease. J. Insur. Med., 5:48, 1950.

Brams, William (Newark), and Robert Blynn—Presacral neurectomy for relief of dysmenorrhea: report of 16 cases. J. Newark Beth Israel Hosp., 1:59, January 1950.

Brandman, Otto (Newark), William J. Messinger, Walter Redisch, and Kurt Zeltmacher—Auricular flutter with complete heart block. Ann. Int. Med., 33:659, September 1950.
See also Redisch, Walter.

Brodkin, Henry A. (Newark) — Congenital chondrosternal depression (funnel chest); its treatment by phrenosternolysis and chondrosternoplasty. Dis. Chest, 19:288, March 1951.
See also Bernstein, Arthur.

Brunner, Hans (Newark)—Superficial epidermoid carcinoma of the larynx. Arch. Otolaryng., 51:49, January 1950.

Catlaw, J. Kenneth (Jersey City)—See Halligan, Earl J.

Cheskin, Louis J. (Newark)—The carotid sinus syndrome. J. Newark Beth Israel Hosp., 1:254, October 1950.

Cohen, Samuel (Jersey City), and Robert H. Gans—Treatment of tuberculous meningitis with streptomycin. Dis. Chest, 18:215, September 1950.
See also Sevringhaus, Elmer L.

Danzis, Max (Newark) — Medicine in Israel. J. Newark Beth Israel Hosp., 1:100, April 1950.

Dintenfass, Arthur (Atlantic City)—Allergy of the ear; with classification and a new treatment of labyrinthine hydrops by dehydration. Arch. Otolaryng., 51:582, April 1950.

Dreizin, David H. (Newark)—See Reich, A. L., and Schulman, Philip.

Finkler, Rita S. (Newark)—Juvenile endocrinopathies. *(In* Cyclopedia of Medicine, Surgery, Specialties. v.5:29, F. A. Davis Co., June 1950).
With Sylvia F. Becker—Functional thyroid disturbances in children. J. Newark Beth Israel Hosp., 1:118, April 1950.

Fitch, Thomas S. P. (Plainfield), Albert W. Pigott, and Samuel M. Weingrow—Corticodiencephalic gastro-intestinal syndromes in epileptics. Rev. Gastro-enterol., 17:1, 1950 (not completed).

Friedman, A. I. (Hackensack), and Richard H. Marshak—Endometriosis of the large bowel treated with testosterone. Gastro-enterology, 14:576, April 1950.
With Richard H. Marshak—Meckel's diverticulum producing chronic intestinal obstruction. Gastro-enterology, 15:754, August 1950.
With Richard H. Marshak, and Louis J. Lester—Megacolon, a complication of ulcerative colitis. Gastro-enterology, 16:768, December 1950.
With Richard H. Marshak, and David A. Dreiling—Post-bulbar duodenal obstruction in carcinoma of the pancreas. Gastro-enterology, 16:680, December 1950.

Furst, Nathan J. (Newark)—See Levinson, Louis J.

Gans, Robert H. (Jersey City)—See Cohen, Samuel, and Sevringhaus, Elmer L.

Gilbert, Samuel M. (Newark)—The gastric ulcer problem. Rev. Gastro-enterol., 17:916, October 1950.

Glynn, Robert (Newark)—See Brams, William.

Goldberg, Harold H. (Newark), and Sanford M. Lewis—Acute myocardial infarction and the Wolff-Parkinson-White syndrome. Am. Heart J., 40:614, October 1950.

Goldman, Lester M. (Newark), William Lipstein, and Gabriel Yelin—Xanthoma diabeticorum: the incidence of sternal bone-marrow involvement. J. Newark Beth Israel Hosp., 1:110, April 1950.
See also Salsberg, Herbert.

Goldstein, Hyman I. (Camden)—Errors of priority credit in medicine: forgotten names (editorial). Rev. Gastro-enterol., 17:393, May 1950.
Gastritis. Acta gastro-enter. belg., 13:929, July-August 1950.
The history of regional enteritis (Saunders-Abercrombie-Crohn's ileitis). Schweiz. med. Wchnschr., 80:1035, 1950.
Liver puncture for diagnosis of cirrhosis of the liver. The Medical Way, 13:3, January 1951.
Malignant tumors of the gastro-intestinal tract in the young. Schweiz. med. Wchnschr., 80:1033, 1950.

Halligan, Earl J. (Jersey City), Louis L. Perkel, J. Kenneth Catlaw, and Leonard Troast—Surgery in massive hemorrhage of the upper gastrointestinal tract. Rev. Gastro-enterol., 18:432, June 1951.

Heller, George (Englewood), and Milton Sloane—Erythema bullosum malignans following dilantin therapy. Pediatrics, 5:836, May 1950.

Heyman, Arthur (Newark)—Facial paralysis following vaccination against smallpox; case report. J. Newark Beth Israel Hosp., 2:58, January 1951.

Hitschmann, Otto B. (Newark), Morris Leider, and Rudolf L. Baer—Dermatitis due to the procaine fraction of procaine penicillin. J. Invest. Dermat., 15:165, September 1950.

Kern, Meyer J. (Newark)—See Roth, Samuel R.

Kessler, Henry H. (Newark) — Hemipelvectomy: with a report of four cases and a note on prostheses. J. Newark Beth Israel Hosp., 1:41, January 1950.

Klosk, Emanuel (Newark)—See Bernstein, Arthur, and * Parsonnet, Aaron E.

Larkey, Irving G. (Newark)—Postoperative prevention of anal stenosis. Rev. Gastro-enterol., 17:948, October 1950.

Leff, William A. (Newark) — Eisenmenger complex; report of two cases with angiocardiography. J. Newark Beth Israel Hosp., 1:293, July 1950.

Levine, Burton (Newark) — Clinico-pathological conference (editor). J. Newark Beth Israel Hosp., 1:80, January 1950; 1:149, April 1950; 1:227, July 1950.

Levinson, Louis J. (Maplewood), Edward Siegel, B.S., N. J. Furst, and David Tabowitz, B.A.—The development of a radioactive isotope program in a general hospital; Pt. 1, Requirements for the development of a radioactive isotope laboratory; Pt. 2, Clinical application of radioactive isotopes with special reference to radioactive iodine (I 131) and radioactive phosphorus (P 32). J. Newark Beth Israel Hosp., 2:28, January 1951.

Levy, Anna (East Orange)—See Rosen, Frank L.

Lewis, Sanford M. (Newark)—See Goldberg, Harold H.

Lipstein, William (Irvington)—See Goldman, Lester M.

Loeser, Lewis H. (Newark), and Ira S. Ross — Hypoglycemia. J. Newark Beth Israel Hosp., 1:188, July 1950.

Miller, Ralph (Newark), and Albert B. Tucker—Interference between supraventricular and ventricular premature contractions. J. Newark Beth Israel Hosp., 1:197, July 1950.

Newman, Grace T. (Montclair)—Estrogen therapy by implantation of estradiol crystals. Am. J. Obst. and Gynec., 60:661, September 1950.

*Parsonnet, Aaron E. (Newark), Emanuel Klosk, and Arthur Bernstein—Dysphagia in cardiovascular disease. J. Newark Beth Israel Hosp., 1:5, January 1950.

Peer, Lyndon A. (Newark), and John C. Walker—The behavior of autogenous human tissue grafts; a comparative study. In two parts. Plast. and Reconstruct. Surg., 7:6, January 1951; 7:73, February 1951.

Perkel, Louis L. (Jersey City) — See Halligan, Earl J.

Pigott, Albert W. (Skillman)—See Fitch, Thomas S. P.

Provisor, Benjamin (Passaic)—See Shier, Julius M.

Redisch, Walter (Newark), and Otto Brandman—The use of vasodilator drugs in chronic trench foot. Angiology, 1:312, August 1950.

Reich, A. L. (Newark), and David H. Dreizin—Leiomyosarcoma of the rectum: case report. J. Newark Beth Israel Hosp., 1:76, January 1950.

Ricketts, Rowland (Merchantville)—Gastric analysis—practical or useless? Rev. Gastro-enterol., 17:893, October 1950.

Riese, Jacob A. (West New York)—Is surgery necessary for the silent gallstone? Rev. Gastro-enterol., 18:426, June 1951.

Rommer, Thomas C. (Newark)—See Applebaum, Irving L., and Shulman, Philip.

Rosen, Frank L. (Newark), and Anna Levy—Bronchial asthma due to allergy to tobacco smoke in an infant; a case report. J.A.M.A., 144:620, October 21, 1950.

Ross, Ira S. (Newark)—See Loeser, Lewis H.

Roth, Samuel R. (Newark), and Meyer J. Kern—Diverticulum of the stomach; case report. J. Newark Beth Israel Hosp., 1:219, July 1950.

Salsberg, Herbert (Newark), and Lester M. Goldman — Multiple myeloma: a clinicopathologic study. J. Newark Beth Israel Hosp., 1:18, January 1950.

Sevringhaus, Elmer L. (Nutley), Samuel Cohen, Robert H. Gans, and Sung-Nien Lu—Nicotinamide therapy of lingual changes in tuberculous patients. Am. Rev. Tuberc., 62:360, October 1950.

Shapiro, Irving (Newark)—Estrogens by local application in treatment of acne vulgaris. Arch. Dermat. and Syph., 63:224, February 1951.

Shapiro, Myron J. (Newark), and F. Johnson Putney — Sialography. Arch. Otolaryng., 51:526, April 1950.

Shier, Julius M. (Passaic), and Benjamin Provisor—Epidemic herpes zoster ophthalmicus; report of a case treated with aureomycin. Am. J. Ophth., 33:1921, December 1950.

Shulman, Philip (Newark), David H. Dreizin, and Thomas C. Rommer—Bilateral renal vein thrombosis with the nephrotic syndrome; a case report. J. Newark Beth Israel Hosp., 1:65, January 1950.

Simon, Franklin (Newark)—See Bernstein, Arthur.

Sing-Nien Lu (Jersey City)—See Sevringhaus, Elmer L.

Sloane, Milton (Englewood)—See Heller, George.

Troast, Leonard (Jersey City) — See Halligan, Earl J.

Tucker, Albert B. (Newark)—See Miller, Ralph.

Walker, John C. (Newark)—See Peer, Lyndon A.

Wilentz, William C. (Perth Amboy)—A medical view of the lead problem. Am. Pract., 1:1248, December 1950.

Willner, Milton M. (Newark)—Duodenal ulcer in a premature infant. J. Newark Beth Israel Hosp., 1:144, April 1950.

Yelin, Gabriel (Newark)—See Goldman, Lester M.

Zeltmacher, Kurt (Trenton)—See Brandman, Otto.

* Deceased.

OBSTETRICS-GYNECOLOGY PRIZE OFFERED

Announcement is made of a $100 cash prize (plus privilege of presentation and publication) for the best manuscript on an obstetrical or gynecologic topic submitted before November 1 to the South Atlantic Association of Obstetricians and Gynecologists. Details may be obtained from Dr. J. C. Burwell, 416 Jefferson Building, Greenboro, N. C.

SETON HALL UNIVERSITY—ESSEX COUNTY MEDICAL SOCIETY GRADUATE MEDICAL EDUCATION PROGRAM 1951 - 1952

Course	*Instructor*	*Time*	*Place*	*Starting*
1H Internal Medicine	University Staff	4-6 p.m.	S	October 12, 1951
12H Biochemistry	Dr. Cantarow	4-6 p.m.	N	October 10, 1951
5H Surgical Pathology	Dr. Fein	9-11 a.m.	S	October 13, 1951
24H Gynecologic Pathology	Dr. Fein	11 a.m.-1 p.m.	S	October 13, 1951
6H Surgical Anatomy	Dr. Lampe	4-6 p.m.	N	October 1, 1951
25H Abdominal Surgery	Dr. Lampe	4-6 p.m.	N	October 5, 1951
25HX Abdominal Surgery	Dr. Lampe	4-6 p.m.	N	February 8, 1952
51H Surgical Anatomy of Chest	Dr. Lampe	4-6 p.m.	N	February 11, 1952
26H Therapeutic and Diagnostic Nerve Blocking	Dr. Rovenstine	4-6 p.m.	N	February 6, 1952
40H Vascular Diseases	Dr. Pratt Dr. Boller	4-6 p.m.	N	October 9, 1951
52H Clinical Electrocardiography	Dr. Schwartz	4-6 p.m.	N	October 5, 1951
18HR Radiological Physics	Dr. Quimby	4-6 p.m.	N	October 2, 1951
18HD Diagnostic Roentgenology	Dr. Taylor	4-6 p.m.	N	November 13, 1951
18HT Radiation Therapy	Dr. Kaplan Dr. Rubenfield	4-6 p.m.	N	March 4, 1952
53G Amputations	Dr. Kessler	4-6 p.m.	K	February 6, 1952
64HX Office Proctology	Dr. Goldbacher	4-6 p.m.	N	February 7, 1952
64H Office Proctology	Dr. Goldbacher	4-6 p.m.	N	October 1, 1951
65H Dermatology	Dr. Reiss	4-6 p.m.	N	October 4, 1951
66H Anesthesiology (Basic Science Aspects)	Dr. Dripps Dr. Vandam	9-11 p.m.	S	October 16, 1951
67H Dermatology	Dr. Sobel	4-6 p.m.	N	January 17, 1952
46H Endocrinology	Dr. Sevringhaus	9-11 p.m.	S	January 7, 1952
31H Gynecology	Dr. Falk Dr. Blinick Dr. Horowitz	3-5 p.m.	S	February 23, 1952
45H Unipolar Lead Electrocardiography	Dr. Goldberger	4-6 p.m.	S	October 8, 1951
55H Cardiac Arrhythmias	Dr. Goldberger	4-6 p.m.	S	February 4, 1952

KEY TO LOCATIONS:

S—Campus of Seton Hall University (South Orange)
N—Newark City Hospital
K—Kessler Institute (West Orange)

SUPPLEMENTARY LIST No. 4
TO THE OFFICIAL LIST OF MEMBERS AS OF MARCH 1, 1951

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

AUGUST 20, 1951

Alford, Ralph I., 83 Park st., Montclair (7)
Anderson, Ethelyn J. C.,195 Euclid av.,Ridgef'd P.(2)
Audi, Eugene J., 466 S. Maple av., Glen Rock (2)
Bergmeyer, Josef T., 6500 Palisade av., W. N. Y.(9)
Bertland, Alex. U., 142 Belvidere av., Wash'gt'n(21)
Bibbo, Canio, 130 Kensington rd., River Edge (2)
Blauvelt-Wells, Grace B., 212 Sunset av.,Ridgew'd(2)
Breen, James E., 418 Chestnut st., Union (20)
Burch, Reynold E., 102 S. 14th st., Newark (7)
Burns, Geoffrey C.H.,County rd.& S'th st.,Demar't(2)
Coburn, J. Wesley, 29 Hawthorne av., E. Orange(7)
Cooper, H. M., 37 Ridge rd., Rutherford (2)
Decker, John G., 147 Terrace av., Hasbr'ck Hts.(2)
DeGregorio, Peter J., 56 Prospect st., Madison (14)
Dodd, Samuel G., 54 Green av., Madison (14)
Fechner, Fred J., 846 Garrison av., Teaneck (2)
Fechner, Herta, 846 Garrison av., Teaneck (2)
Fischman, Mervin E., 264 Clinton pl., Newark (7)
Franklin, I. Harold, 191 Palisade av., Jersey City(9)
Garbarini, John G., 93 Clifton pl., Jersey City (9)
Garrett, Thomas A., 315 Park st., Hackensack (2)
Gilligan, Walter W., 164 Forrest av., Glen Ridge (7)
Gilmour, John R., 144 S. Harison st., E. Orange (7)

Hammell, Frank M., 137 S. Main st., Allentown (11)
Herrman, William G., 211 Norwood av., Deal (13)
Higgins, Thomas F.,224 Monmouth rd.,Elizabeth(20)
Liva, G. Albin, 567 Wycoff av., Wycoff (2)
Lotman, Harry A., 1007 Springfield av., Irvington(7)
Mackowsky, Edwin, 241 Second st., Jersey City (9)
McCarthy, Cornelius P., 887 Boulevard, Bayonne(9)
McGee, Hugh E., 117 Cedar lane, Teaneck (2)
Miller, Eugene L., 63 Baldwin av., Newark (7)
Moretti, John J., 18 Ivanhoe ter., East Orange (7)
Muller, Joseph H., 867 S. 13th st., Newark (7)
Neary, Edward R., 210 Carlton ter., Teaneck (2)
O'Connor, John J., 2124 New York av., Union City(9)
Olson, Vendela E., 308 Union st., Hackensack (2)
Pannell, Walter L., 100 Evergreen pl., E. Orange(7)
Pincus, Isidore, 138 Clinton av., Newark (7)
Pullen, Guy F., 111 Leonia av., Leonia (2)
Rommer, J. Jay, 25 Ingraham pl., Newark (7)
Rudomanski, Victor, 381 Kearny av., Kearny (7)
Sabini, Cecil F., 257 4th st., Hoboken (9)
Simonson, Herbert M., 202 Osborne ter., Newark(7)
Somers, Ernest E., 987 S. Broad st., Trenton (11)
Tepper, Victor, 2 Parkview ter., Newark (7)
Wortman, Harry C., Jr., 17 Warren st., Nutley (7)

ASSOCIATE MEMBERS

Browdy, Sol, 1928 Riverside dr., Trenton (11)
Cagan, Ralph N., 730 W. State st., Trenton (11)

OBITUARIES

C. FREDERICK BECKER

Dr. C. Frederick Becker, chief neurologist and psychiatrist of the Cooper Hospital, Camden, died on July 23, 1951, at the age of 60.

Dr. Becker, a graduate of Jefferson Medical College in the class of 1915, had practiced in Camden for 34 years. He interned at Cooper Hospital. In 1919 he was appointed to the neurological staff of Jefferson Medical College. He had also been clinical assistant in the neurological department of Jefferson Medical College, neurological representative special treatment clinic of Jefferson Hospital, psychiatrist to the Camden County Detention Home, and consultant neuropsychiatrist to the U. S. Veterans Bureau, South Jersey after World War I. Dr. Becker opened the first tuberculosis clinic in Camden County in 1916. In his college days he was a cub reporter on the old Philadelphia Press. He also wrote poetry, many pieces of which were published.

DR. DANIEL E. DRAKE

Dr. Daniel E. Drake, Newfoundland, country doctor of the old school, died on July 19, 1951. He was 87 and had practiced medicine since his graduation from the University of Vermont at the age of 25.

The oldest member of the Passaic County Medical Society, he had served 40 years as president of the West Milford Board of Health. He had operated the Idylease Sanitarium in Newfoundland, which he opened 48 years ago.

ROHRSCHACH TECHNIC COURSE

An intensive course in the Rohrschach technic will be conducted by Samuel B. Kutash, Ph.D., Chief Clinical Psychologist, Veterans Administration Mental Hygiene Clinic, Newark. The course will run the full school year, from September 1951 through June 1952, and will include administration, scoring, and interpretation of the Rohrschach Test, making liberal use of actual case material and clinical illustrations.

Each semester will consist of 15 sessions on Thursday evenings from 7:00 p. m. to 9:30 p. m., beginning September 27, 1951. Registration fee will be $45 per semester. Registration will be limited to 20 students. Admission to the course will be subject to the approval of the instructor. Applications should be submitted prior to September 25 to Professor Harold S. Carlson, Chairman, Department of Psychology, Upsala College, East Orange, New Jersey.

RESIDENCIES AVAILABLE IN NEWARK CITY HOSPITAL

One, two and three-year residencies paying $1200 a year are available at Newark City Hospital in medicine, surgery, urology, pathology and otolaryngology. Interested physicians should apply to the Department of Education, City Hospital, 116 Fairmount Avenue, Newark, N. J.

Medical-Surgical Plan of New Jersey
"New Jersey's Blue Shield Plan"

GENERAL INFORMATION CONCERNING MEDICAL-SURGICAL PLAN OF NEW JERSEY

This article, prepared by Mr. James E. Bryan, Administrator of Medical-Surgical Plan of New Jersey, offers basic information concerning the Plan, primarily for Participating Physicians. All physicians should familiarize themselves with the specific provisions of the Subscription Contract which govern all definitive actions by the Plan.

1. *What is The Medical-Surgical Plan?*

Medical-Surgical Plan is a non-profit medical service corporation, organized by The Medical Society of New Jersey under provisions of the law respecting "Corporations and Associations not for Profit".

It is one of the 77 "Blue Shield" medically-organized medical care plans now serving more than 20 million people throughout the United States. Collectively, these plans represent organized medicine's constructive solution to the problem of providing pre-paid medical service.

2. *What is the relationship between Medical-Surgical Plan and Blue Cross?*

The "Blue Cross" Plan in this state is the Hospital Service Plan of New Jersey. There is no corporate relationship between Medical-Surgical Plan of New Jersey and Hospital Service Plan of New Jersey. Each is a separate corporation. "Blue Cross" (Hospital Service Plan) provides pre-payment for hospital service; "Blue Shield" (Medical-Surgical Plan) for medical care.

By contract between the two organizations the Hospital Plan solicits and enrolls Medical-Surgical Plan Subscribers, does the billing, collecting and general accounting for Medical-Surgical Plan. Medical-Surgical Plan maintains its own office for the medical evaluation of claims, for authorization of disbursements, for handling relationships with physicians, and for public relations, apart from solicitation of subscribers.

3. *What is the relationship of the Plan to The Medical Society of New Jersey?*

The Plan was organized by The Medical Society of New Jersey in 1942. The Plan also has the formal approval of each of the 21 component county societies. The names of all persons elected to the Plan's Board of Trustees are first submitted as nominees to The Medical Society of New Jersey for approval by the Society before election to the Board.

The Plan maintains a close consulting relationship with The Medical Society of New Jersey as the official agency of the medical profession throughout the state.

4. *How many persons are enrolled as subscribers of Medical-Surgical Plan?*

As of July 1, 1951, nearly 600,000 persons, representing approximately one out of every eight persons living in New Jersey were enrolled in the Plan.

5. *What has been the history of Medical-Surgical Plan development?*

SUMMARY OF OPERATIONS

Year Ending December 31	Earned Subscription Income	Claims Incurred	Claims Incurred (% of Income)	Operating Cost (% of Income)	Persons Enrolled End of Period
1942	$ 11,148.78	$ 5,395.50	48.4	51.1	4,131
1943	74,498.47	49,562.50	66.5	23.9	16,015
1944	187,708.74	135,605.75	72.2	18.9	30,427
1945	326,530.37	208,288.36	63.7	17.5	49,441
1946	540,227.83	370,576.10	68.6	16.8	88,088
1947	947,945.57	681,922.85	72.0	17.1	143,700
1948	1,524,814.76	1,203,651.50	79.0	15.0	236,604
1949	2,545,518.33	1,979,542.90	77.8	13.8	353,827
1950	5,252,060.16	4,278,098.89	81.5	12.9	499,882

The following major characteristics are to be observed: (1) a progressive growth in the number of subscribers; (2) an impressive decrease in the ratio of administrative costs from 51.1 per cent in 1942 to 12.9 per cent of subscription income in 1950; (3) an increase in the proportion of income devoted to payments for medical and surgical care from 48.4 per cent of income in 1942 to 81.5 per cent in 1950.

6. *What is a Participating Physician?*

Any physician (other than a hospital resident physician or intern) fully licensed by the state of New Jersey to practice medicine and surgery may become a Participating Physician. Each Participating Physician has agreed in writing to perform eligible services for enrolled members of the Plan according to the terms of the Subscription Contract. This means that a Participating Physician, upon accepting a Plan subscriber or enrolled dependent as a patient, has agreed to accept the Plan's payment for eligible services as payment in full, if the subscriber's annual income at the time such services are rendered is not more than $5000.

A Participating Physician is a physician who is *participating* in the Plan, and the Plan is required by law to maintain the participation of at least 51 per cent of all the physicians practicing in each county of the state in order to enroll subscribers in that county.

7. *How many Participating Physicians have enrolled in Medical-Surgical Plan?*

On July 1, 1951, approximately 4750 physicians were enrolled, representing over 80 per cent of all physicians practicing in New Jersey.

8. *What benefits accrue to the Participating Physician as such?*

The Participating Physician has the satisfaction of making an indispensable contribution to his profession in its effort to solve the major problems of medical care by voluntary methods—without necessity of government intervention.

The Plan recognizes its Participating Physicians by means of an engraved office certificate, and by listing them in its *Directory of Participating Physicians.*

This list of Participating Physicians is made available to subscribers in order that they may, if they so desire, select a Participating Physician to serve them, when eligible services are required.

9. *What benefits are provided by the Plan?*

Basically the benefits payable by the Plan apply to services rendered by fully licensed physicians to persons *admitted to hospitals* for treatment. Eligible services include medical, surgical, obstetrical, anesthesia and consultation. The Plan also covers the following exceptions to the requirement of hospital admission:

1. Tonsillectomies performed in the offices of physicians.
2. Emergency surgical services rendered in the out-patient departments of approved hospitals without formal admission of patient for bed occupancy.
3. Emergency surgical services occasioned by accidental injury and rendered anywhere within 48 hours after the accident, in accordance with the Plan's schedule of benefits, but not to exceed $25 for any one accident.
4. Pre-natal and post-natal service; obstetrical service, provided delivery occurs after seven or more months of pregnancy.

10. *What services are not eligible for payment by the Plan?*

The Plan shall not be liable, nor shall services be deemed eligible for payment under the Contract:

1. If the services were rendered prior to the date on which the patient was enrolled as an Eligible Person, or if the hospital admission occurred prior to acceptance for enrollment.
2. If the Eligible Person has already utilized the number of days eligible for payment as computed and limited in Subscription Contract for eligible medical (not surgical) services.
3. If the services are rendered for or in connection with any of the following: rest cures; solely diagnostic purposes; any sickness, disease or injury occurring during military service or in whole or in part compensable under State or Federal Workmen's Compensation or similar legislation; or during hospitalization provided under the laws of the United States of America or of any State or political subdivision thereof.
4. If the services are those of a surgical assistant or of a hospital resident physician or intern, or are rendered by a physician practicing under a limited license, or by a dentist or other person who is not an Eligible Physician as defined in the Contract.
5. For any of the following: blood or blood plasma; radium treatments; electrocardiograms; hydrotherapy; x-ray therapy; physiotherapy; drugs and anesthetics; medical or surgical appliances; medications or dressings; x-ray and laboratory examinations; hospital services; services to which the patient is entitled under any hospital plan contract under which the hospitalization occurs; or services rendered outside an approved hospital except as otherwise expressly provided in the Contract.

11. *How does a person enroll in Medical-Surgical Plan?*

(a) *Group enrollment*

Group enrollment is conducted through the place of employment, where arrangement is

made for payment of the subscription rate of each subscriber by payroll deduction, frequently with the employer participating in the subscription cost or underwriting the entire cost for all eligible employees. The subscription payments for the entire group are transmitted in a single remittance by the remitting agent of the group. Currently, the Plan requires the following percentages of groups of employed persons, for initial enrollment of the group:

Number of Employees	*Minimum Requirements*
10 (minimum group) to 50	10 applications, or 80%
51 to 100	40 applications, or 60%
over 100	60 applications, or 51% (whichever is greater)

(b) *Direct (non-group) enrollment*

The Plan is not presently enrolling any new non-group subscribers. An experimental enrollment of approximately 30,000 persons to whom non-group contracts were issued effective July 1, 1950, is providing the actuarial and administrative experience upon which the Plan expects, before long, to be able to develop an attractive contract to be offered non-group subscribers at the minimum rate required to support such a contract.

12. *What does the Medical-Surgical Plan contract cost the subscriber?*

On the basis of Group enrollment:

Single Contract—$1.16 monthly
One parent and eligible children—$2.32 monthly
Husband and Wife (without maternity)—$2.80
Family Contract—Husband, wife and eligible children—$3.84 monthly

For Non-group enrollment (Non-group enrollment and Left-Group):

Single Contract—$1.41 monthly
One parent and eligible children—$2.57 monthly
Husband and Wife (Without Maternity)—$3.84
Family Contract—Husband, wife and eligible children—$4.09 monthly

(Non-Group Contracts are paid for on a quarterly, semi-annual, or annual basis)

13. *Who is eligible to subscribe to the Plan?*

Any member of an eligible employed group, his or her spouse, and their unmarried child or children seven days old or not older than nineteen years, who are immediate members of the family. There is no age limit for enrollment of persons who are members of an eligible group.

14. *What about free choice of physician?*

The Plan makes possible free choice of physician from among fully licensed physicians of any state and does not interfere with professional matters pertaining to the patient-physician relationship. The Plan pays the same dollar amounts in benefits for services rendered by non-participating physicians as for those rendered by Participating Physicians. Plan payments to non-participating physicians are on account of the physician's charges. To insure reasonable freedom of choice to Plan subscribers among Participating Physicians, the law requires that the Plan maintain Participating Physician agreements with at least 51 per cent of all practicing physicians in each county of the State in which it does business.

15. *How are claims presented to the Plan?*

The physician attending an enrolled subscriber or dependent submits a Service Report to the Plan upon completion of his eligible services. The attending physician or obstetrician or the operating surgeon presents a blue Medical Service Report (MS-53)—Part I of which is completed by (or from information supplied by) the subscriber or patient.

Part II of this form is completed by the physician, and upon receipt by the Plan, the report is processed for payment. If the reported service is found ineligible, a letter is promptly directed to the subscriber and the physician explaining the reason for declination of the claim.

"Auxiliary" or "Special" services (such as consultation or administration of anesthesia or transfusion) are reported by the physician rendering these services on a brown "Special" Services Report (MS-55).

Supplies of the Service Reports are sent upon request to physicians and are maintained by hospitals throughout New Jersey for the convenience of their visiting doctors. Many of the remitting agents of employed groups maintain supplies of the service report for the convenience of subscribing members of their groups—especially for those attended by physicians outside of New Jersey.

16. *How is the doctor paid?*

The physician is paid directly by the Plan. If, for any reason, the physician has been paid by the subscriber or patient prior to submitting his Service Report to the Plan, and if this is reported in the indicated space on the Service Report, then Plan payment is made to the subscriber as a reimbursement, in the amount of the payment made to the doctor, up to the maximum scheduled allowance for the reported eligible service.

In general, physicians are requested to look only to the Plan for payment of eligible services, and they are requested to report such services promptly upon their completion. Physicians are earnestly requested to cooperate

with the Plan and its subscribers by refraining from any effort to collect payment in advance from a Plan subscriber for services eligible for Plan payment.

17. *How is the amount of Plan payment determined?*

Medical-Surgical Plan payments are made according to the charges stated by the physician on his Service Report for the eligible service rendered, up to, but not exceeding, the maximum allowance set forth in the Plan's *Schedule of Payments.*

A condensed *Schedule of Maximum Payments* provided for the more frequent conditions has been distributed to physicians and subscribers. The complete current *Schedule* is available, upon request, to any physician, and is also provided to hospitals and remitting agents of employed groups, upon their request.

A revised *Schedule of Maximum Payments* is presently in preparation. When completed, it will be distributed to all Participating Physicians, as part of a permanent loose leaf "Manual", containing much practical information about the Plan.

Maximum payments are based upon recommendations made to the Plan by representatives of all the major professional groups in the state. The items in the *Schedule* comprise the judgment of the profession itself with respect to adequate average fees for the respective services, for families earning $5000 a year, or less. More than 80 cents of every premium dollar paid by subscribers is presently paid to physicians for services rendered.

Every claim is reviewed by, or under the direct personal supervision of, one or another of the Plan's three medical directors.

18. *When is Plan payment deemed by the Participating Physician as "payment in full"?*

If the subscriber or patient certifies, in Part I of the Medical Service Report (submitted by the attending physician) that the annual income of the subscriber at the time services are rendered is not in excess of $5000, then the Plan payment of the physician's charges for eligible services, up to the amount specified in the *Schedule of Maximum Payments,* is to be deemed by a Participating Physician as payment in full.

"Eligible services", in the case of a hospitalized surgical case, in general, are limited to such services rendered while the patient is confined to the hospital.

In the case of a hospitalized medical case, "eligible services" of the attending physician are limited to medical care by the physician to the patient while hospitalized—up to the contract limit of 21 days during which actual care is rendered and reported to the Plan.

In an eligible obstetrical case, "eligible services" covered by Plan payment, include delivery and usual pre- and post-natal service, wherever rendered, "incident to pregnancy or childbirth, or for any diseases or injuries or conditions incident thereto". Services in connection with abortions, miscarriages or premature labor within the first seven months of pregnancy are "eligible" only if rendered in hospital.

Eligible services outside of hospital, apart from maternity services, are limited to emergency surgical service rendered within 48 hours after an accident, (up to a limit of $25); tonsillectomy and adenoidectomy; and emergency surgical service in an out-patient department of an approved hospital.

19. *When is Plan payment for eligible services not necessarily considered "payment in full"?*

(a) If the annual income of the subscriber at the time services are rendered is more than $5000; and/or:

(b) If the eligible physician is not a Participating Physician.

To avoid misunderstanding, the Participating Physician should make certain that the patient or subscriber has indicated his income status in Part I of the Service Report. Every physician attending Plan subscribers or their dependents is requested to make known to such patients whether or not he (the doctor) is a Participating Physician.

COLLEGE OF SURGEONS

The American College of Surgeons will hold its next Clinical Congress in San Francisco, November 5 to 9, 1951. The Hospital Standardization Conference is scheduled to be held concurrently. The combined programs will include scientific and technical exhibits, color television, cine clinics, medical motion pictures, scientific sessions, panel discussions, conferences, symposia, official meetings, and forums. Several thousand surgeons and hospital representatives are expected to attend. Detailed program may be obtained from the College at 40 East Erie Street, Chicago 11.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

MRS. THOMAS H. MCGLADE, West Collingswood

A special office for the Auxiliary has been established in The Medical Society Headquarters, at 315 West State Street, Trenton, N. J. This has been made possible through the generosity, understanding and splendid cooperation of the Medical Society. A staff worker, under the capable supervision of Mrs. Edith Madden, has been assigned to carry out the clerical details of the Auxiliary work. This is mainly to relieve the clerical duties of the officers and state chairmen. Eventually, it is hoped that we may channel all our programs through this office.

The past accomplishments of the Auxiliary have been outstanding. There is now an opportunity to do even more. All eligible doctors' wives in New Jersey should be Auxiliary members. We are in a singular position to assist organized medicine. In so doing, however, we must remember that as an Auxiliary, we must only support those programs which have been approved by the Medical Society.

Auxiliary planning has proceeded during the summer months. Mrs. Edward Dyer, President-Elect and I have arranged to combine a Workshop with our Fall Executive Board Meeting. All members are invited to attend. It will be held on Monday, October 8, 1951, at the Medical Society Headquarters. This will be your opportunity to visit the new office and for us all to become better acquainted.

BOOK REVIEWS

Diabetes Mellitus; Principles and Treatment. By Garfield G. Duncan, M.D. Pp. 289. Philadelphia, W. B. Saunders Company, 1951. ($5.75)

This book gives a somewhat original approach to the subject of diabetes. These short and concise chapters cover every phase of the subject more completely than most books of diabetes known by this reviewer. Controversial facts are largely avoided. The text is well documented, including the very latest advances in the recent literature.

A very simple classification of the severity of the diabetes near the beginning of the book seems later to be modified by a classification according to the height of the blood sugar. This is practically the only subject of purely academic flavor in which the conciseness of the book fails. The references at the end of each chapter are exclusively from English and American publications, which may not constitute too faulty an omission. The role of insulin mixtures seems to be lightly glossed. The "simple" diet method mentioned in the advertisement of the book does not seem to be any simpler than the awe-inspiring food substitute lists usually presented. For the physician the various sample diets will be of help, but there are probably simpler methods of presenting the diet to the patient.

The completeness of the review of the latest ideas (with reasons given by the author for his preference) gives a fair aspect to what little is presented in a controversial manner. The illustrative case and chart for complete study of comas is an ornament to the book. It is difficult today for even an author with wide experience to give an unbiased, neutral view of a subject about which there is now considerable controversy. Such things as the use of glucose in coma, the exact criteria of control, and the patterns of insulin administration (as to kind and timing) are still modified by the experience of the individual even in a comparatively large series of cases. The division of thought on these subjects is gradually being resolved, however, and with this thought in mind, it may be said that Dr. Duncan has given a fair presentation of one method for solving the diabetic problem as it now exists.

E. O. BAUMAN, M.D.

When Minds Go Wrong. John M. Grimes, M.D. Privately published by the author at 5209 Harper Avenue, Chicago. Pp. 238, 1951. ($5.00)

In a letter accompanying the review copy, the author writes: "No psychiatrist ever told such a tale before". Chapter I. is entitled "The Sizzling Truth". The author's thesis is twofold: (1) That mental disease is much simpler than is generally thought, that "they are social and psychologic problems with little or no medical side to them," and that, accordingly, an M.D. is not needed for the treatment of psychoses and psychoneuroses; and (2) that existing mental hospitals are corrupt, operated by politically appointed sadists who serve as attendants, and that the first step in straighten-

ing this out would be to discharge all attendants and operate hospitals without them.

The following direct quotations serve to underline the author's thesis: "Manic-depressive, dementia precox and psychoneurotic patients are the most obvious people on earth. . . . psychiatrists have played up psychoneurosis as a thing that requires a great learning in order to fathom it. . . a functional mental disorder is merely a vivid and greatly prolonged daydream. . . the treatment of dementia precox is so logical that one marvels at the blunders we have made in our attempt to cope with it. . . psychiatrists want to keep on running a highly remunerative monopoly. . . among all the state hospital physicians with whom I have worked, I cannot recall one who ever really tried to release patients. . . in state hospitals, doctors are not expected to treat the minds of their patients. They are not employed to give psychiatric care. . . that idea is fostered for the sake of anxious relatives."

Actually the keynote of Dr. Grimes' crusade is fair enough. He wants to see our state hospitals improved and every one will wish him well in this campaign. However, his lack of restraint and his whimsical concepts of psychodynamics and psychotherapy blunt the effectiveness of his message.

HENRY A. DAVIDSON, M.D.

Paul Ehrlich. By Martha Marquardt. With an Introduction by Sir Henry Dale, Henry Schuman, New York, 1951. 255 pages. ($3.50)

The author of this most interesting book was associated with Paul Ehrlich from 1902 to 1915. In her previous work, "Paul Ehrlich as a Man and a Worker" (1924), she limited her story to personal reminiscences of this great investigator gathered during years of close association. In this new book, the author extends the story of Ehrlich's life, and gives a fascinatingly interesting story of his life. Paul Ehrlich was born in 1854, in upper Silesia, and died in 1915. He studied at the Breslau University, and then went to the University of Strassburg, where Waldeyer was his tutor. Ehrlich discovered "Salvarsan" ("606") and "Neosalvarsan" ("914"), "mast-cells", staining methods, and the "side-chain" theory. He had worked in Frerich's medical clinic, where in 1883 he first performed liver puncture aspiration in several patients. This early work by Ehrlich has been overlooked by all writers of today on "liver puncture biopsy".

The book reviews his association with Robert Koch and Emil von Behring, and his work at The Steglitz Institute, The Frankfurt "Serum-Institute" and The Georg Speyer-Haus.

In 1908 the Nobel Prize for medicine was awarded to Paul Ehrlich, and Metchnikoff of the Pasteur Institute in Paris for their successful studies in immunity.

This biography is a fascinating account of a great scholar and investigator. It makes interesting reading for layman and doctor, for resident and intern, for nurse and laboratory technician. It is enthusiastically recommended by the reviewer to all those wishing to read the story of a great man.

HYMAN I. GOLDSTEIN, M.D.

Physicians' Desk Reference to Pharmaceutical Specialties. Edited by J. Morgan Jones. 5th edition. Rutherford, N. J., 1951. Medical Economics, Inc.

Want to find, in a hurry, the trade names and manufacturers of some antihistaminics—or hormone products? You will find it here in the yellow section where products are classified by chemical or pharmacological group. Or perhaps you know that you want to use, say, Pyribenzamine, but you have forgotten the name of the manufacturer. Then turn to the pink section, and there it is clearly spelled out: Pyribenzamine tablets—Ciba, with a cross reference to page 431 where you will find the product explained in more detail. Or perhaps you'd be grateful for some tips as to appropriate medication for alcoholism or anemia, for warts or worms, for tularemia or trichomonas—then look at the blue section, where syndromes are arranged alphabetically, with therapeutic suggestions after each. The white section lists the manufacturers, and under each you will find their major products with specific dosage, administration and package information.

The "PDR" in fact will even tell you how to get information or drugs in a hurry. It lists the addresses and phone numbers of the major manufacturers and their chief local offices and depots. And it also packs into its pages all sorts of useful odds and ends—a digest of narcotic laws, a list of free medical motion picture films and how to get them (a life-saver for any harrassed program committee chairman), a guide to endocrine unit terminology, height-weight-age tables, a guide to the treatment of epilepsy, dosage calculations for children, poisons and antidotes, dosage conversion tablets, eye bank rosters and feeding formulas, normal blood chemistry or gastric fluid findings, dentition charts and tips on removing medicinal stains, cosmetic irritants and drug incompatibilities. All-in-all, it is easily worth five or ten dollars of any doctor's money to have this fact-packed volume on his desk top. Only it doesn't cost five or ten dollars. The publishers distribute it free to physicians. There is no catch in it, either, since they list only ethically advertised products.

VICTOR HUBERMAN, M.D.

Hospital Staff and Office Manual. By T. M. Larkowski, M.D., and A. R. Rosanova, M.D., Great Neck, New York, Romaine Pierson Publishers, 1951. Pp. 428. ($4.95)

The electro-encephalogram, we are told here, "is not yet fully accepted. Its value is doubtful." This seems queer in a 1951 publication that is modern enough to mention terramycin. The book is designed to bridge the gap between theoretical teaching in medical school and actual day-by-day practice. This it does in somewhat uneven fashion. It contains much material that is mere padding. For example, three full lines of print are devoted to a formal definition of "prescription"—this in a text intended for M.D.'s! A whole page is wasted to tell the doctor about superscription, inscription and subscription of a prescription. X-ray pro-

cedures take up 33 pages which include details of value only to the roentgenologist or the technician. One wonders of what *practical* value it is to tell the reader that chorionepithelioma is a "lawless proliferation of the chorionic elements". And so it goes. Not that the book is all dross. On the contrary, the patient searcher will find many nuggets of useful information. If only the unnecessary words could have been deleted, we would have here a valuable *vade mecum*. Thus, psychoneuroses are divided somewhat uselessly into three categories—simple, conversion and regressive. It is hard to see how this unorthodox classification contributes anything practical or how the book would have been hurt if the editor had mercifully drawn a blue line through that paragraph in the manuscript.

The strength of the book lies in its common sense review of laboratory and hospital procedures, its helpful hints on manipulative technics, its shorthand summaries of disease therapy. All specialties of medicine and surgery are included, and if the reader does not mind hacking through paragraphs of the obvious, he will find frequent gems of wisdom and clinical shrewdness. The paper, printing and binding are beautiful.

Ulysses Frank, M.D.

The Microkaryocytes, the Fourth Corpuscles, and Their Function. By K. G. Khorozian, M.D. Pp. 969. 480 Illustrations. Boston, The Meador Press, 1951. ($12.00)

Our present knowledge of the structure of cells stems from the discovery of the microscope. With the advent of new instruments and methods, it is only natural that our knowledge of cytology needs to be brought up to date. Previously the maximum magnification attained was 1500 diameters and now, of course, we can magnify cells 40,000 diameters and even higher.

This monograph is the result of an original investigation of such re-examination. The author found certain structures that were previously not seen at all or, if seen, variously interpreted. A good example is the granules in cytoplasm of certain cells.

This volume proceeds upon the thesis that all cells, secretions and liquids in the body are composed of minute cellular elements which he calls microkaryocytes. Dr. Khorozian finds that these microkaryocytes originate in the yellow bone marrow. On this assumption, he attempts to rectify the concepts previously held. He believes that the granules are definite anatomic, histologic, and cytologic entities. They are cells. In other words the mitocondria and the reticulum structures of certain cells (such as erythrocytes) themselves are composed of microkaryocytes. The endogenous and exogenous "pigment granules" are microkaryocytic cells. By chemical analysis he demonstrates that the granules and these microkaryocytes are one and the same. These microkaryocytes are modified into different structural make-ups in the cells of different organs, keeping the original cytologic morphology.

To get an idea about their size, a platelet is about two micra in diameter and these particles or cells, as he calls them, are 1/10 of a micron in diameter. These cells can be see only with the electron microscope and possibly with phase microscopy.

He shows that cancer cells, like other cells in the body, are made up of these microkaryocytes. Viruses such as rabies, smallpox, rocky mountain spotted fever, are composed of microkaryocytic cells. The author further asserts that secretions are clear cut cytologic entities composed of these microkaryocytic cells. That salivary, gastric, duodenal, intestinal, pancreatic, and hepatic secretions are also composed of these cells. Finally, Dr. Khorozian believes that the union, dissemination and utilization of all therapeutic agents are accomplished by the microkaryocytic cells.

Since this is an entirely new concept it is impossible for the reviewer to evaluate these findings. However, we must expect our literature in the near future to contain concepts that are incomprehensible to us at present.

Samuel A. Goldberg, M.D.

The Neuroses; Diagnosis and Management of Functional Disorders and Minor Psychoses. By Walter C. Alvarez, M.D. Pp. 667. Philadelphia, W. B. Saunders Co., 1951. ($10.00)

When a physician has reached the point where his knowledge of the science of medicine is comprehensive and secure, he is then in a position to develop in pure culture what is inadequately termed the "art of medicine". Few practitioners reach this status. Walter Alvarez is among them. The title of this volume is misleading for it fails to suggest that rather than a simple exposition of the varieties of emotional disorders, he has succeeded in recording the personal experiences of a medical lifetime, offering thereby to physicians in every field a *modus operandi*—an approach to medical endeavor at its finest.

Dr. Alvarez is not a psychiatrist. His orientation to the functional aspects of disease is almost entirely non-analytical. However, it is just this which makes his book of greatest value to the busy practitioner who has neither the background nor the time to handle the psychiatric factors of disease in laborious analytical detail. Employing a conversational style which provides the reader with the flavor of a staff-room "bull-session" with the author, Dr. Alvarez considers almost every conceivable variety of emotional problem. He offers his great experience and practiced judgment in resolving it. Not the least of the entertaining and valuable aspects of the literary approach are the countless illustrative anecdotes, extracted from the files of a lifetime's practice of medicine.

One often wishes he could supplement his technical training with a year or two "at the key-hole"—watching the masters of medicine turn the failures of others into successes. Dr. Alvarez has provided the closest approach to fulfillment of this need. His volume belongs on the "required reading" list of every physician who has ever failed to help a patient through lack of recognition of (or inability to cope with) the functional components of disease.

Sanford M. Lewis, M.D.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV September, 1951 No. 9

SPONTANEOUS PNEUMOTHORAX—CONTRAST OF THE BENIGN IDIOPATHIC AND THE TUBERCULOUS TYPES

Bernard Hyde, M.D., and LeRoy Hyde, M.D., Annals of Internal Medicine, December, 1950.

Spontaneous pneumothorax has been known to physicians for many years. The dramatic picture of sudden unilateral chest pain with dyspnea and the finding of a collapsed lung on physical examination and chest roentgenogram are easily recognized. Although it was once believed that all spontaneous pneumothoraces were tuberculous, it has been shown that spontaneous pneumothorax may be produced by diseases such as bacterial pneumonia and may occur in apparently healthy individuals. It is important to differentiate spontaneous pneumothorax caused by tuberculosis from that occurring in the healthy, because of the differences in treatment and prognosis.

The exact frequencies of benign idiopathic spontaneous pneumothorax and tuberculous pneumothorax are difficult to determine. The former entity is often unrecognized as such and wrongly diagnosed as tuberculosis. A physician in a tuberculosis sanatorium would be likely to see more cases of tuberculous spontaneous pneumothorax, whereas one in general practice would see more cases of benign idiopathic spontaneous pneumothorax.

At the Birmingham Veterans Administration Hospital, the Thoracic Service cares for patients with both tuberculous and nontuberculous disease. In a two-year period, there have been 41 cases of benign idiopathic spontaneous pneumothorax but only 10 cases of tuberculous spontaneous pneumothorax. To contrast benign idiopathic spontaneous pneumothorax (which occurs in apparently healthy individuals) and tuberculous spontaneous pneumothorax (which occurs in patients with pulmonary tuberculosis), our data, based on 76 cases of the former and 35 patients with the latter, are presented.

I. Benign Spontaneous Pneumothorax

In 1943 the United States Army had 873 hospital admissions for benign idiopathic spontaneous pneumothorax. In our series the ages of the patients varied from 18 to 62 years of age with almost 50 per cent between 20 and 30 years. Males are more frequently affected, in a ratio of about five to one. Each side of the chest is equally involved. The time necessary for re-expansion of the collapsed lung varies greatly. In almost 70 per cent of the patients it was seven weeks or less.

The etiology is unknown. The patients are apparently healthy but usually underweight and never obese. A very few have a history of bronchial asthma, but none had had an asthmatic attack at the onset of the spontaneous pneumothorax. Spontaneous pneumothorax has no relation to effort but chest pain, usually described as "sharp" and cutting," is almost always present on the affected side. Frequently the pain was pleuritic and lasted from one to four days. However, benign idiopathic spontaneous pneumothorax may be completely asymptomatic. Dyspnea was noted in 83 per cent of our patients and cyanosis was found in eight per cent.

Patients with benign idiopathic spontaneous pneumothorax do not reveal lateral pleural adhesions on the chest roentgenogram in our experience. Only four had fluid significantly above the level of the diaphragm, and in all of these cases aspiration revealed pure bloody fluid. All other patients with benign spontaneous pneumothorax had either no fluid or fluid simply filling the costophrenic angle to the level of the diaphragm. Chest

roentgenogram in the benign group reveals no pulmonary infiltration either at the time of the lung collapse or later, when the lung is re-expanded.

Only 10 per cent of the patients in this group had fever, and this never lasted more than seven days. The white blood count and the sedimentation rate were normal in 70 per cent of the cases. Twenty per cent of the patients with benign idiopathic spontaneous pneumothorax have a recurrence.

Treatment is symptomatic. The patient is kept at bed rest with bathroom privileges until the collapsed lung has re-expanded to about 80 or 85 per cent of its volume. With 85 per cent re-expansion the patient is more completely ambulated and following complete re-expansion the patient is allowed full activity. Active intervention is required only in those few cases of tension pneumothorax where aspiration of air and the institution of underwater drainage of the pleural cavity may be life saving.

II. Tuberculous Spontaneous Pneumothorax

Tuberculous spontaneous pneumothorax is usually secondary to sub-pleural caseation with erosion and rupture of the visceral pleura. Air enters the pleural space and the lung on that side collapses. Symptoms vary from none to a sharp, acute, tearing chest pain with dyspnea. Of the 35 patients with tuberculous spontaneous pneumothorax, 25 had sudden pain on the affected side. Since most of these patients were fairly ill with their pulmonary tuberculosis, their pain thresholds may have been elevated. Dyspnea was noted by 27 patients. Examination of the chest roentgen-ray revealed tuberculous infiltration of varying degree but usually far advanced. Lateral pleural adhesions were demonstrable on the chest film in 32 patients, or 91 per cent of the group. Pleural fluid was above the level of the diaphragm in 54 per cent of these patients. Tuberculous spontaneous pneumothorax may affect either side with equal frequency and is not related to effort.

Patients who develop tuberculous spontaneous pneumothorax usually are fairly ill. The sudden onset of a spontaneous pneumothorax, with or without pleural fluid, adds to the patient's respiratory embarrassment and toxemia. Prolonged fever and tachycardia are common. The pleural fluid varied from serous to purulent, and often revealed acid-fast bacilli on concentrate and culture. Of this group, one half had normal sedimentation rates and one half had normal white blood counts with their tuberculous spontaneous pneumothorax. The ages of the group of 35 patients varied from 19 to 70 years. The immediate hospital mortality rate of 29 per cent was caused by both the patient's pulmonary disease and his tuberculous spontaneous pneumothorax. The ultimate mortality rate cannot be stated since most of these patients were transferred to other tuberculosis sanatoria.

Treatment varies with the degree of symptoms. If dyspnea is not severe, no specific therapy is indicated. If a tension pneumothorax is present, an indwelling needle with underwater drainage reduces the increased intrapleural pressure. Management of the pleural effusion varies. Patients with minimal fluid require no thoracentesis. If dyspnea and cyanosis caused by the free pleural fluid are significant, removal is advised. The patient's underlying pulmonary tuberculosis must, of course, be treated.

Benign idiopathic spontaneous pneumothorax and tuberculous spontaneous pneumothorax are two distinct entities with different causes, clinical pictures, and mortality rates. Cases of spontaneous pneumothorax must be carefully observed and the type or cause determined.

Benign idiopathic spontaneous pneumothorax appeared to occur four times as frequently as tuberculous spontaneous pneumothorax.

SUPPLIED BY
NEW JERSEY TRUDEAU SOCIETY
the medical section of the
NEW JERSEY TUBERCULOSIS LEAGUE
15 East Kinney Street, Newark 2, New Jersey

For Simplified Dosage in Amebiasis

NEW

Diodoquin Tablets of

10 GRAINS

(650 mg.)

SEARLE

With the introduction of a new 10-grain (650 mg.) tablet of Diodoquin, the number of tablets necessary for treatment of amebiasis can be reduced from ten a day to three a day.

Thus the twenty-day recommended dosage schedule is accomplished with a total of 60 instead of 200 tablets. The cost to the patient is reduced accordingly.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

A potent oral amebacide— **DIODOQUIN®**

(*diiodohydroxyquinoline*)

—is a well-tolerated, relatively nontoxic compound containing 63.9 per cent of iodine.

Now available in tablets of:

3.2 grains (210 mg.), bottles of 100 and 1,000
10 grains (650 mg.), bottles of 60 and 500

Be sure to prescribe the 10 gr. (650 mg.) size for full adult dosage.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET
SITUATIONS, ETC.

$3.00 for 25 words or less; additional words 5c each
CASH MUST ACCOMPANY ORDER
Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

FOR RENT—Furnished office suite in Irvington, N. J. Ideally situated; excellent opportunity for general practitioner. All facilities furnished. Write Box M, c/o THE JOURNAL.

DOCTOR'S OFFICE FOR RENT IN MONTCLAIR, N. J.—5 rooms, furnished, waiting room, consultation room, 3 treatment rooms. Established as a physician's office for the last 15 years. 183 Grove St., Montclair, N. J. Phone Montclair 2-2288.

PRACTICE WANTED — ORTHOPEDIST is desirous of obtaining a well-established orthopedic practice with good income. Will consider buying property. Write Box 8, c/o THE JOURNAL.

HOUSE FOR SALE — FOREST HILL, Newark— 14 rooms, 3 baths, 2 lavatories, brick and steel construction, 2 car garage, ample parking space. Write Box 9, c/o THE JOURNAL.

FOR RENT—Beautifully furnished and equipped 4½ room office; part time daily. So. Munn off Central Ave., East Orange. Receptionist. Reasonable rental. Call South Orange 3-3727, 6-8 p. m.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No Good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

Head Pain as a Diagnostic Lead

Frequently the presence of head pain is overlooked. The physician learns of it only if he has made an effort to elicit the information. Since the etiology of the pain is the basis of rational management, the patient should be warned against taking medication before diagnosis is made.

Friedman[1] deplores the tendency to call any chronic recurring headache migraine. Careful history-taking and full physical and neurological examinations are essential for accurate diagnosis. A good starting point is a description of the headache — its character, laterality, frequency and intensity.[2]

The following chart gives briefly the primary diagnostic leads and treatment for the most common types of headache.

Etiology of Headache	Primary Diagnostic Data	Primary Therapy
Inflammatory e.g., Meningitis Abscess	Inflammation of intracranial structures; fever; leucocytosis; bacteriologic diag.	Specific: sulfonamides and antibiotics. Symptomatic: analgesics.
Tumor	Pain varies as spinal press. changes; skull X-ray.	Specific: surgery. Symptomatic, analgesics, &/or hypnotics.
Sinusitis	Sinus congestion and infection; cloudy X-ray.	Specific: antibiotics and drainage. Symptomatic: analgesics.
Hypertensive	Hypertension present but pain not related to b.p. level; Dihydroergotamine. relieves pain.	General hypertension therapy; sedation. Symptomatic: analgesics.
Migraine & other vascular headaches	Headache: recurrent, intense, throbbing. No organic causation; migraine in family; patient: energetic, perfectionist. Visual prodromata; g-i. upset during headache.	To abort attack: oral ergotamine plus caffeine. General: adjustment to minimize nervous stress.

Data here tabulated is from: Wolf, G., Jr.,[3] and Friedman, A. P.[4]

Cecil[5] ranks vascular headaches, e.g., migraine and tension headaches, as the most commonly encountered of all. Because of their functional nature and usual recurrence at frequent intervals, they present a long-term therapeutic problem.

Therapy is conducted along two lines:

1) Psychotherapy to reduce the frequency of attacks. This consists mainly of advice on emotional adjustment to stressful situations and guidance toward a good balance between work and relaxation.

2) Treatment of the distressing attack to prevent the usual period of incapacitation. Many investigators have reported that ergotamine preparations are effective for relief of the acute migraine attack in 80% of cases.[1,6] The drug is given immediately when an attack is approaching and dosage adjusted to the needs of the individual.

1. Friedman, A. P. and von Storch, T.: 99th A.M.A. Session, June 1950. 2. Butler, S. and Hall, F.: M. Clin. N. Amer., p. 1439 (Sept.) 1949. 3. Wolf, G., Jr.: M. J. 34:25, 1951. 4. Friedman, A. P. and Conn, H. T.: Current Therapy, 1950, p. 563; Saunders Co., Phila. 5. Cecil, R. L.: A Textbook of Medicine, ed. 7, 1948, p. 1483; Saunders Co., Phila. 6. Horton, B. et al: Staff Meet. of Mayo Clinic 20:241, 1945.


THE JOURNAL
American Medical Association
Cantarow & Trumper's Clinical Biochemistry
NORDISK MEDICIN
Indian Medical Gazette
LA TUNISIE MEDICALE
LA PRENSA MÉDICA
ARGENTINA
AMYLCID
KLINISCHE WOCHENSCHRIFT
Arzt-Portrait
IRISH JOURNAL OF MEDICAL SCIENCE
THE LANCET
PRESSE
JOURNAL DE MÉDECINE DE LYON
BOLETIN OFICINA SANITARIA PANAMERICANA
The Journal of Clinical Investigation
CALCUTTA MEDICAL JOURNAL
FELDENE
REVISTA ESPAÑOLA PEDIATRIA
TROPICAL MEDICINE AND HYGIENE
TRANSACTIONS
THE ROYAL SOCIETY OF
TROPICAL MEDICINE
AND HYGIENE
ANNALS OF INTERNAL MEDICINE
ARCHIVES OF INTERNAL MEDICINE
The Canadian Medical Association Journal
BRITISH MEDICAL JOURNAL
THE MEDICAL JOURNAL OF AUSTRALIA

World-wide **USE**
World-wide **ACCLAIM**

Chloromycetin®

CHLOROMYCETIN's world-wide reputation stems from its ability to produce rapid clinical response in a wide variety of infectious diseases—bacterial, viral and rickettsial. Numerous reports and the experience of daily practice confirm its

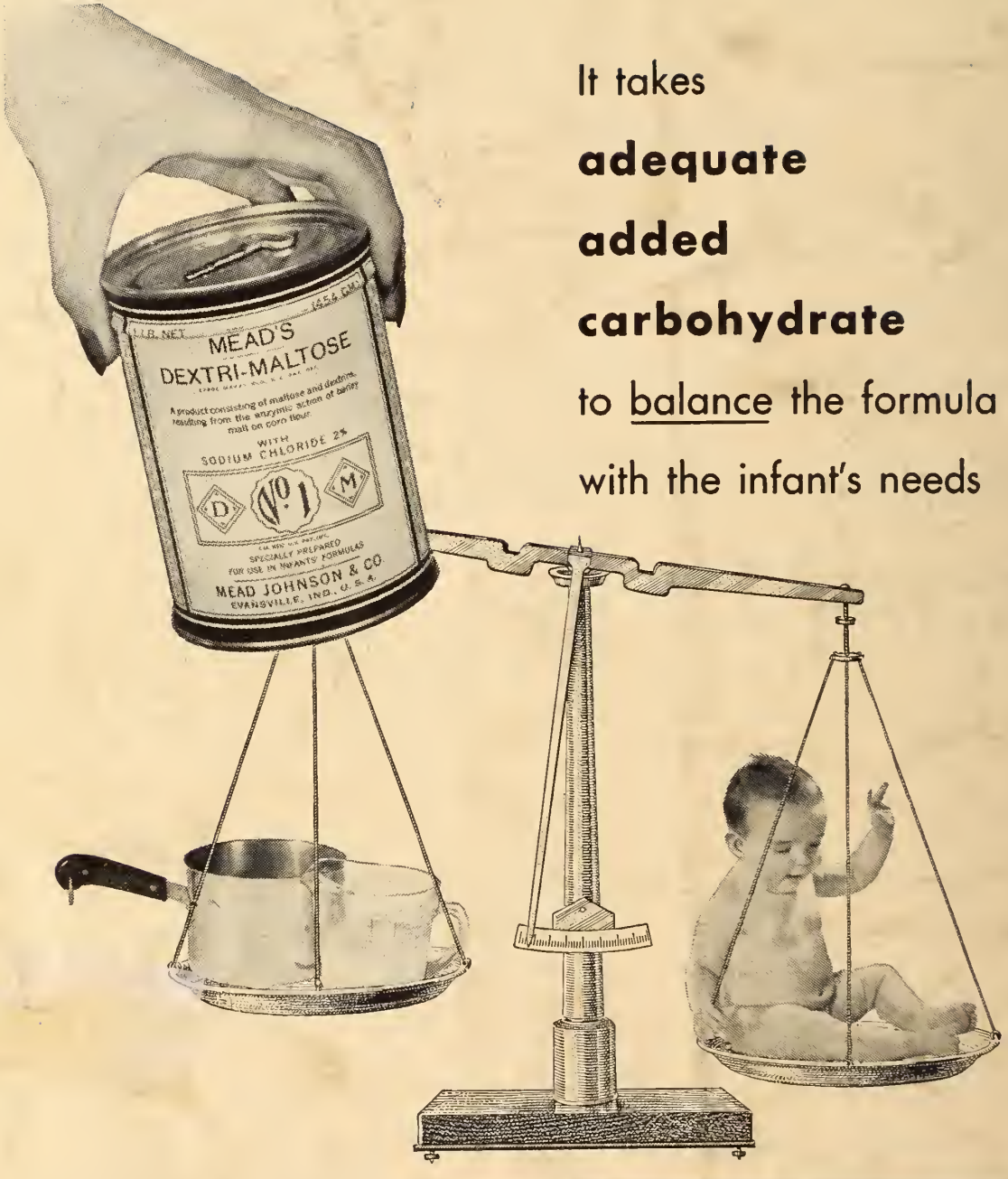
clinical efficacy • high tolerance
wide spectrum • high blood levels

CHLOROMYCETIN, a pure crystalline compound of definite molecular structure, is the only antibiotic produced on a practical scale by chemical synthesis. This unique feature means unvarying composition for dependable therapeutic results, freedom from extraneous material, and infrequent side effects.

CHLOROMYCETIN (Chloramphenicol, Parke-Davis) is supplied in Kapseals® of 250 mg., and in capsules of 50 and 100 mg.

COMPANY DETROIT 32, MICHIGAN

MEDICAMENTA VERA P & CO.



It takes

adequate

added

carbohydrate

to balance the formula

with the infant's needs

Added carbohydrate is a necessity for a well balanced formula. In *adequate* amounts, carbohydrate:

1. Spares protein for essential tissue building functions.
2. Permits proper metabolism of fat.
3. Promotes optimum weight gain.
4. Encourages normal water balance.

Pediatric authorities recommend a caloric distribution of about 15% from protein, 35% from fat, 50% from carbohydrate. For forty years, cow's milk and Dextri-Maltose® formulas with this approximate caloric distribution have been used with success.

These formulas often consist of ⅓ evaporated milk, ⅔ water and 5% added Dextri-Maltose—1 level tablespoon Dextri-Maltose to 5 ounces of formula.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U.S.A.

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 10 OCTOBER, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 445 to 492

Roster of Officers, Advertising Page 3 A

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications for *publication* to editorial office at 315 West State St., Trenton 8, N. J.

Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*..... Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, SIGURD W. JOHNSEN .....Passaic
President-Elect, HARROLD A. MURRAY .....Newark
First Vice-President, HENRY B. DECKER .....Camden
Second Vice-President, ELTON W. LANCE .....Rahway
Secretary, MARCUS H. GREIFINGER .....Newark
Treasurer, GEORGE J. YOUNG .....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953) .....Atlantic City
REUBEN L. SHARP, *Secretary* (1954) .....Camden
SIGURD W. JOHNSEN .....Passaic
HARROLD A. MURRAY .....Newark
HENRY B. DECKER .....Camden
ELTON W. LANCE .....Rahway
MARCUS H. GREIFINGER .....Newark
GEORGE J. YOUNG .....Morristown
ALDRICH C. CROWE .....Ocean City
WILLIAM F. COSTELLO (1953) .....Dover
WILLIAM C. WILENTZ (1953) .....Perth Amboy
JOSEPH G. COLEMAN (1953) .....Hamburg
L. SAMUEL SICA (1954) .....Trenton
DAVID W. GREEN (1954) .....Salem
J. LAWRENCE EVANS (1954) .....Woodcliff
ROYAL A. SCHAAF (1952) .....Newark
WILLIAM E. DODD (1952) ..... Beach Haven
C. BYRON BLAISDELL (1952) ..... Asbury Park

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1954)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....JACOB J. MANN, Perth Amboy (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1954)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1953) .....Hoboken
WILLIAM F. COSTELLO (1953) .....Dover
J. WALLACE HURFF (1952) .....Newark
DAVID B. ALLMAN (1952) .....Atlantic City
ELMER P. WEIGEL (1952) .....Plainfield
L. SAMUEL SICA (1952) .....Trenton

Alternates

ALBERT B. KUMP (1953) .....Bridgeton
WALTER F. PHELAN (1953) ..... Elizabeth
JOHN H. ROWLAND (1952) .....New Brunswick
ALDRICH C. CROWE (1952) .....Ocean City
HERSCHEL PETTIT (1952) .....Ocean City

Magna Cum Laude

CAPSULES

PROBESE

(MARA)

The most modern and finest preparation available
for the management of

OBESITY

Curbs the Appetite • Provides Bulk • Supplies Lipotropic Factors
• Protection Against Nutritional Deficiencies •

Each Capsule Contains:

Dextro Amphetamine Sulfate	5 mg.
Methylcellulose	25 mg.
Choline Dihydrogen Citrate	20 mg.
Inositol	10 mg.
Vitamin B6 (Pyridoxine Hydrochloride)	1 mg.
Vitamin A (Fish Liver Oil)	4000 U.S.P. Units
Vitamin D (Irradiated Ergesterol)	400 U.S.P. Units
Vitamin B1 (Thiamine Hydrochloride)	1 mg.
Vitamin B2 (Riboflavin)	2 mg.
Vitamin C (Ascorbic Acid	30 mg.
Niacinamide	10 mg.

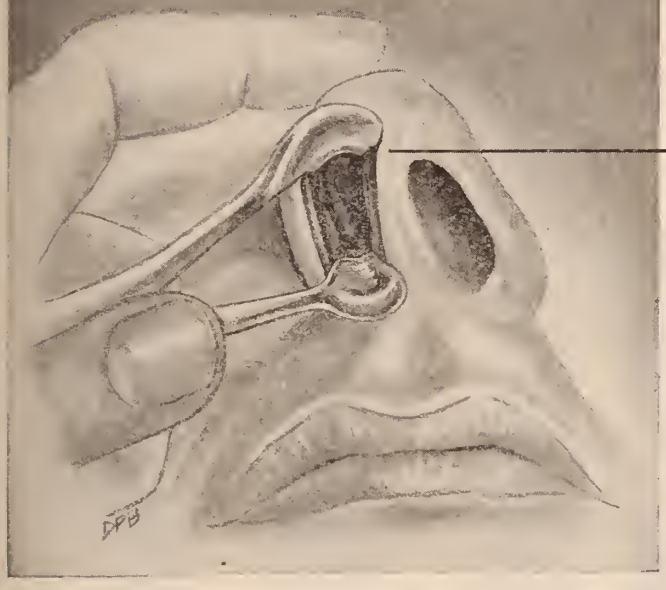
Moderate ½ cost

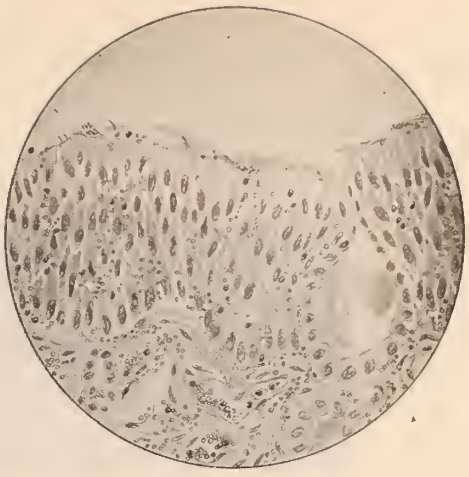
Samples and Literature on request

The Mara Laboratories, Inc.

HARRISON NEW JERSEY

promotes
aeration . . . free drainage
in colds
. . . sinusitis





Nasal membrane showing increased leukocytes with denudation of cilia.

Normal appearing nasal epithelium.

Nasal engorgement and hypersecretion accompanying the common cold and sinusitis are quickly relieved by the vasoconstrictive action of

NEO-SYNEPHRINE®

HYDROCHLORIDE

Brand of Phenylephrine Hydrochloride

The decongestive action of several drops in each nostril usually extends over two to four hours. The effect is undiminished after repeated use.

Relatively nonirritating . . . Virtually no central stimulation.

Supplied in ¼% solution (plain and aromatic), 1 oz. bottles. Also 1% solution (when greater concentration is required), 1 oz. bottles, and ½% water soluble jelly, ⅝ oz. tubes.

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Neo-Synephrine, trademark reg. U. S. & Canada

Stress, common to severe infections, in surgery and burns, increases demands upon adrenal cortical function. When adrenal cortical function is hard-pressed and recovery threatened or convalescence impeded by inadequacy of output

℞ ***Upjohn Adrenal Cortex Extract***

by subcutaneous, intramuscular or intravenous injection.

Pioneering research by Upjohn investigators in adrenal physiology has contributed to the availability, to the potency and to the standardization of extracts providing *all* of the natural cortical hormones.

Each cc. of Upjohn Adrenal Cortex Extract contains the biological activity equivalent of 0.1 mg. of 17-hydroxycorticosterone, as standardized by the Rat Liver-Glycogen Deposition test. Alcohol content 10%.

Upjohn
Research

for Medicine... Produced with care... Designed for health

THE UPJOHN COMPANY, KALAMAZOO, MICHIGAN

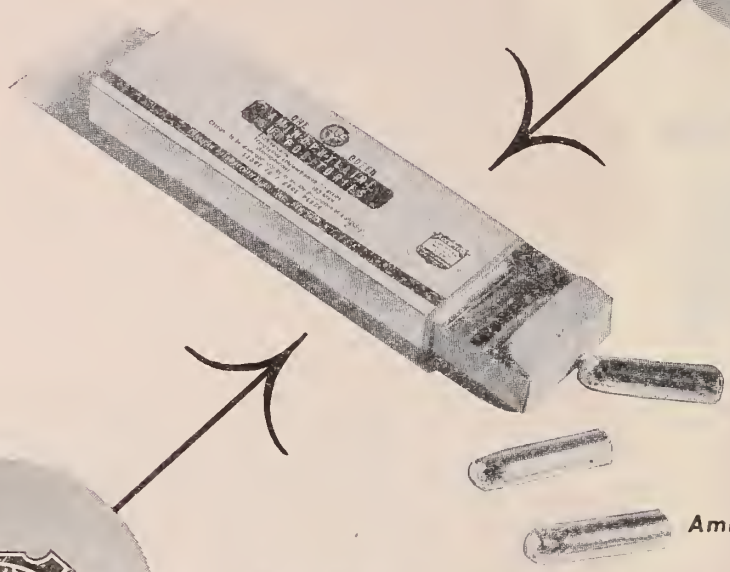
APc AMINOPHYLLINE SUPPOSITORIES

APc STANDARD OF QUALITY

NEW

CONVENIENT

WIDELY APPLICABLE



ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Now COUNCIL-ACCEPTED

Council-Accepted Aminophylline Suppositories, **APc** *now join Council-Accepted Aminophylline Tablets,* **APc** *(plain and enteric coated) as convenient, effective, simple adjuncts in the treatment of selected cardio-respiratory conditions.*

DIURETIC • MYOCARDIAL STIMULANT • BRONCHIAL RELAXANT

AMINOPHYLLINE SUPPOSITORIES, APc

In a non-greasy, water miscible base • Useful in mild to moderate bronchial asthma; adjunctal to oral or intravenous aminophylline in all indications; for nocturnal relief; where intravenous therapy is undesirable or not available. Bronchial relaxation is fairly rapid, almost as complete as intravenous therapy.

AMINOPHYLLINE TABLETS, APc

ENTERIC COATED

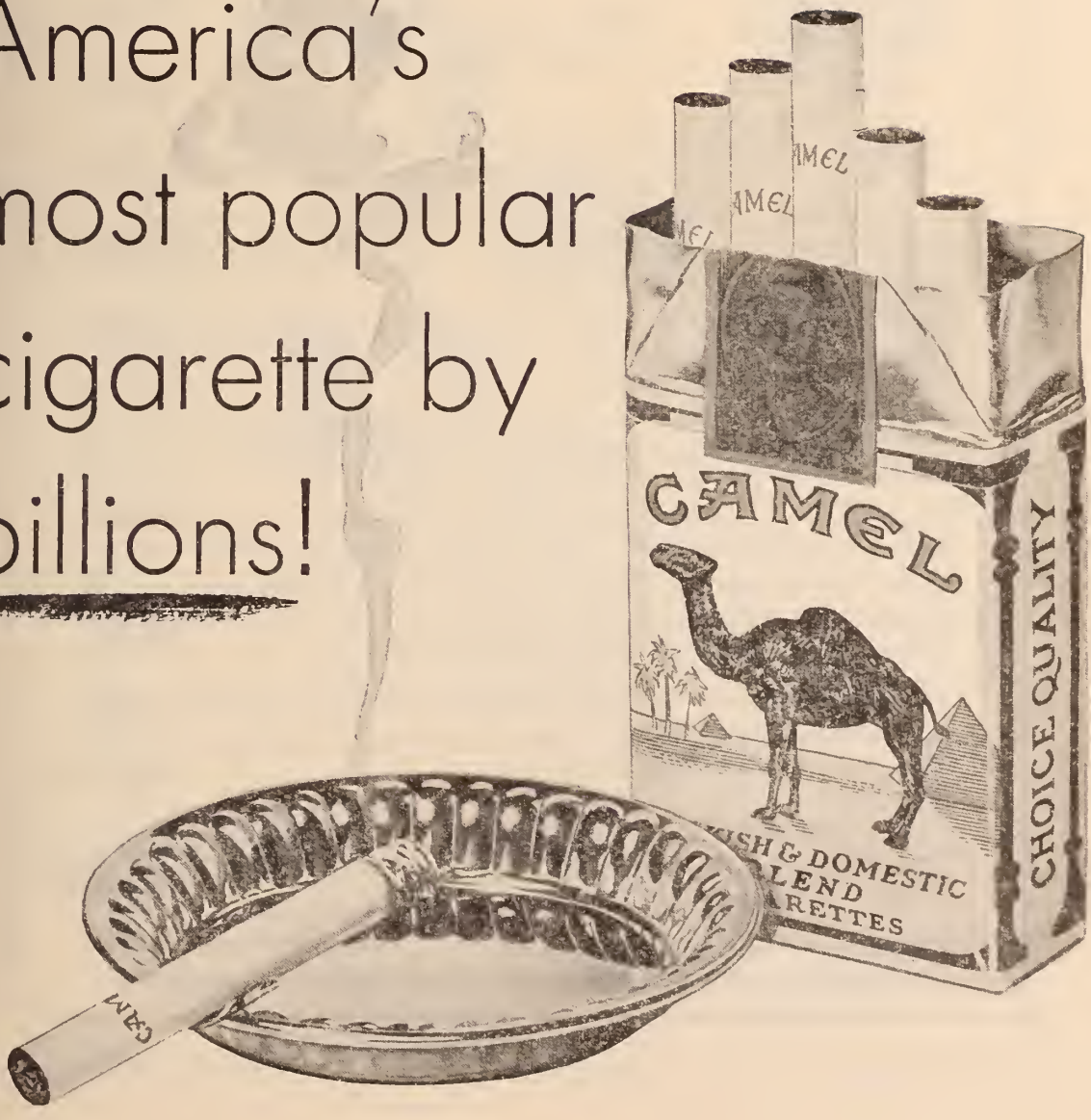
Pass thraugh stamach withaut causing lacal irritatian ar gastric distress due ta special enteric coating. Readily disintegrate in the intestinal tract. Indicated in bronchiol asthma (particularly epinephrine-fast), pulmonary or cardiarenal edemo, poroxysmal dyspnea, and Cheyne-Stokes respiration.

SUPPLIED: Suppasitories, **APc** 7½ gr., boxes of 12.
Enteric coated tablets, 1½ and 3 gr., bottles of 100, 1000, 5000; uncoated tablets, 1½ and 3 gr., bottles of 100, 1000, and 5000
Please specify suppositories or tablets on sample request.

AMERICAN PHARMACEUTICAL COMPANY
MANUFACTURING CHEMISTS • NEW YORK 54, N.Y.

Over 30 years of service to the profession.

After all the Mildness Tests, **Camel** is America's most popular cigarette by billions!



IMPROVING RECTAL COMPETENCE IN DYSCHEZIA

When diminished tonus and contractibility have rendered the rectum incompetent, "there can be no doubt" that Cellothyl is "of great value."[1] Ease and frequency of bowel movements can be increased regardless of duration of dyschezia[1] — provided, of course, that patients who have suffered for years do not expect overnight correction. Steady improvement in the expulsive competence of the rectum will be noted with Cellothyl as the presence of adequate soft bulk and its gentle mechanical stimulation act to —

1. initiate the call to stool
2. encourage prompt, complete evacuation
3. provide soft, moist, easily passed stools
4. eliminate the need for straining
5. minimize pain or trauma to local lesions.

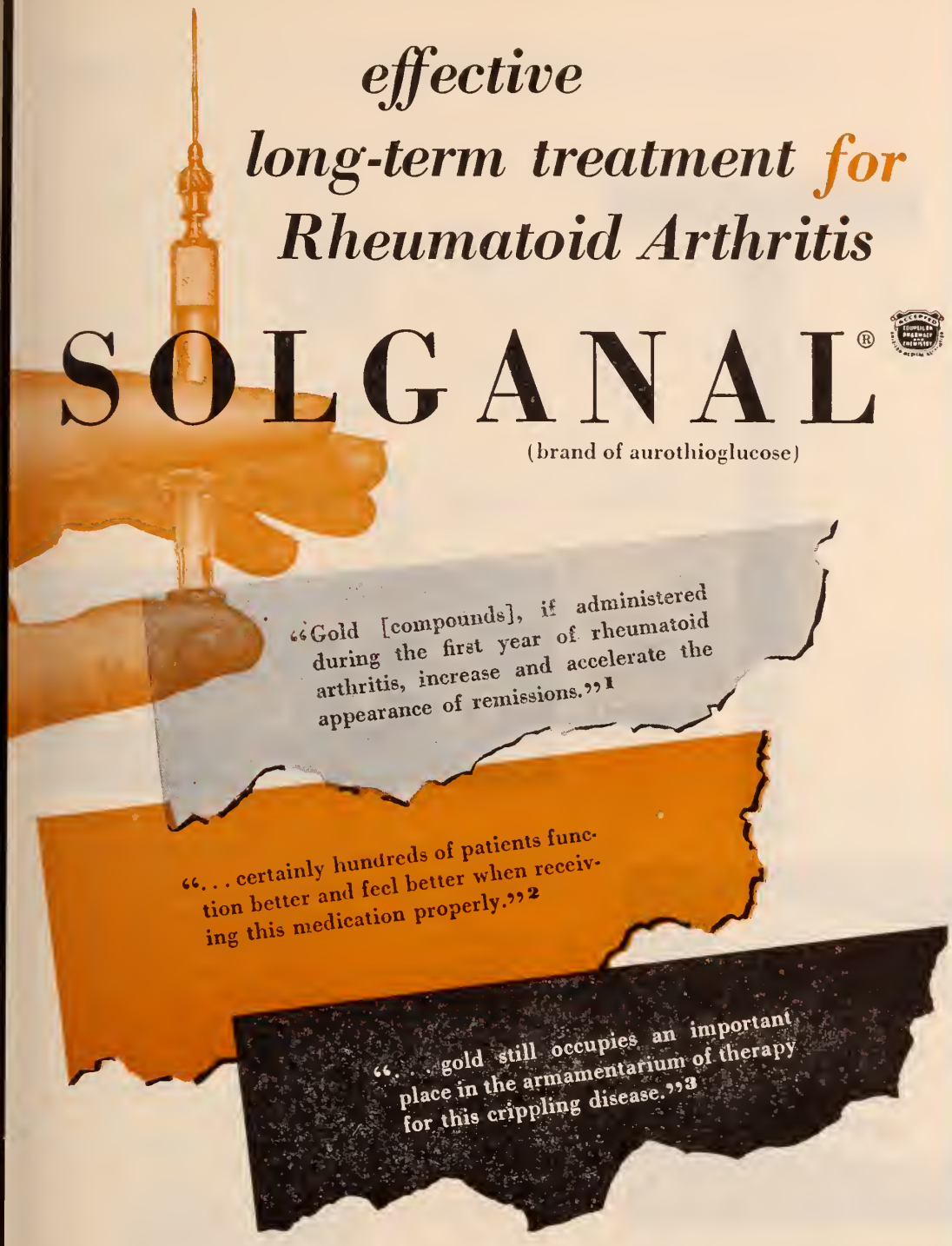
The stomach and small intestine, usually not involved in dyschezia, are unaffected by Cellothyl, which remains in a fluid state until it reaches the colon. Here it thickens to a smooth gel to provide bulk where bulk is needed. Normal, easily passed stools usually begin in 3 to 4 days. (Patients conditioned to purgation may be permitted a mild laxative, together with Cellothyl for several days, then Cellothyl continued alone.) As ease and frequency of defecation increase, dosage should be decreased to the minimum required for comfortable function.

1. Newey, J. A., and Goetzl, F. R.: Permanente Med. Bull. 7:67 (July) 1949.

effective
long-term treatment for
Rheumatoid Arthritis

SOLGANAL®

(brand of aurothioglucose)



"Gold [compounds], if administered during the first year of rheumatoid arthritis, increase and accelerate the appearance of remissions."[1]

"... certainly hundreds of patients function better and feel better when receiving this medication properly."[2]

"... gold still occupies an important place in the armamentarium of therapy for this crippling disease."[3]

1 Adams, C. H., and Cecil, R. L.: Ann. Int. Med. *33*:163, 1950.
2 Bayles, T. B.: Medical Forum, Mod. Med. (no. 24) *18*:86, 1950.
3 Gilbert, J. T., Jr., and Moore, F. H.: J. Kentucky State M. A. *48*:308, 1950.

SOLGANAL

SCHERING

Schering CORPORATION · BLOOMFIELD, N. J.

The Importance of
PREVENTING BORDERLINE NUTRITIONAL STATES IN CHILDREN

IN recent years increasing interest has been focused on the relationship between nutrition and the physical, mental and emotional development of children. It is now well recognized that listlessness and apathy in the child frequently may be nothing other than manifestations of a borderline nutritional state resulting from faulty food selection and inadequate consumption. Moreover, such sequelae of faulty nutrition often respond dramatically to improved food habits.*

For preventing borderline nutritional states in children due to food whims, poor choice of foods, or lack of interest in eating, Ovaltine in milk enjoys long-established usefulness. Its rich content of biologically complete protein, vitamins and minerals can supplement even grossly deficient diets to optimal nutrition. The delicious flavor of Ovaltine invites its acceptance and lends interest to eating when the appetite lags. Children particularly like Chocolate Flavored Ovaltine.

Three servings of Ovaltine in milk furnish the supplementary amounts of nutrients shown in the appended table.

*Baumgartner, L.: Wider Horizons for Children; The Mid-century White House Conference and Children's Nutrition, J. Am. Dietet, A. 27:281 (Apr.) 1951.

THE WANDER COMPANY, 360 N. MICHIGAN AVE., CHICAGO 1, ILL.

Ovaltine

Three servings of Ovaltine, each made of ½ oz. of Ovaltine and 8 oz. of whole milk, provide:*

PROTEIN	32 Gm.	VITAMIN A	3000 I.U.
FAT	32 Gm.	VITAMIN B_1	1.16 mg.
CARBOHYDRATE	65 Gm.	RIBOFLAVIN	2.0 mg.
CALCIUM	1.12 Gm.	NIACIN	6.8 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN C	30.0 mg.
IRON	12 mg.	VITAMIN D	417 I.U.
COPPER	0.5 mg.	CALORIES	676

*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving, they are virtually identical in nutritional content.

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 566

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month.

VOL. 48, NO. 10 OCTOBER, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE

Sir John Parkinson, M.D., F.R.C.P., of London, England, in his convocation address at the annual session of the American College of Physicians in April 1951, said, "Fear has no part in the normal equipment of a physician, still less of a surgeon; but its depth and extent among patients are not sufficiently realized".

If one reflects on the publicity in papers and magazines, and on radio and television programs, sponsored by the many organizations engaged in educating the public to the dangers of heart disease, diabetes, arthritis, cancer, and the like, one cannot escape the realization that fear is excessively played upon. There is a definite value to this powerful emotion, but we have now reached the point where fear is being abused.

This is one of the reasons our Subcommittee on Public Health is conducting an examination into the activities of various organizations with which we maintain cooperative relations.

We are living in an age of mounting fear and uncertainty. If we of the medical profession contribute to the growing uneasiness that besets our fellow citizens, we must be prepared to share the blame for the deterioration of popular morale which may unhappily ensue. Is it not more worthy of our ideals and traditions as physicians to foster a spirit of hope and assurance? Should we not make it clear that we are doing, and are able to do, much more today than ever before to meet the threats of disease and ill health? Could we not thus allay rather than encourage fear and uncertainty?

We are committing our reputation and good name all too often to causes which may be unworthy of our confidence. Furthermore, we are frequently committed to causes sponsored by agen-

cies in which we have little or nothing to say as regards either propaganda or action.

Let us, therefore, carefully evaluate the work of the agencies with which we cooperate, so that we may give our wholehearted support only to those which merit it, and drop our affiliations with those which we find wanting in awareness of and deference for our ideals and traditions.

Sigurd W. Johnsen, M.D.

DRUG RESEARCH AND PRIVATE ENTERPRISE

Ninety per cent of the prescriptions written today could not have been filled in 1935. This is a token of the ever-rising pace of drug research. Most of the new drugs originate in the research laboratories of America's large pharmaceutical companies, which spend more than a hundred million dollars a year in "pure" research. Ever since Banting and Best called on Eli Lilly Company to find out how to mass-produce insulin there has been a cooperation between medical scientists and drug manufacturers that has helped keep America healthy.

Drug research is expensive. It takes a special kind of brains, and also a special kind of recklessness with money. It has been said that if one project in twenty results in finding a useful drug, the pharmaceutical company feels it is doing very well. All the money spent on the other nineteen projects is "wasted", though of course much of professional value may be salvaged even from unsuccessful studies. The striking fact is that this requires a willingness to gamble with huge sums of money: what the economists would call "risk capital". And this is where the peculiar spirit of American private enterprise comes in. Government, no matter how well intentioned, simply could not, would not, spend tax money as lavishly as this kind of study requires with the low numerical return which drug research yields. It is not that Government scientists are unimaginative or over-regimented. It is just that you cannot gamble away tax funds on projects with so low a ratio of success.

Another, and peculiarly American feature of this kind of enterprise is the factor of competition. If Squibb makes a potent product with a moderate level of toxicity, Upjohn tries to find one with a lower level of toxicity. And when they have done that, Parke Davis wants to get in the act by discovering a similar product with the same low toxicity but with higher potency. And from this spirited competition the American doctor—and, more important, the American patient—is the gainer. Obviously this spur of competition is much dulled in countries where Government does all the research. One of the poetic (and unbusiness-like) ironies of this is that the drug companies seem furiously determined to prove that their own products are obsolete. The most famous case is that of the millions spent by Lederle to produce vast quantities of pneumonia serum. As soon as this gigantic project (it included building and populating the world's largest rabbit hutch) reached its peak, the sulfa drugs were introduced, the pneumonia morbidity and mortality rate took gratifying tumbles, and Lederle began closing its king-sized rabbit warren and writing off the millions it had spent. Of course it was the private enterprise of the American drug industry that did most of the work of discovering, improving, manufacturing, testing and distributing those sulfa drugs. In 1916 pneumonia was the number one cause

of death in the United States. Today it is rarely fatal. No one knows how many lives were saved by the enterprise of these drug companies—not only in preparing antibiotics, but in the development of dozens of other life-saving pharmaceuticals and biologicals during the past two decades.

The Government does have a place, and an important one. The drug regulating acts are welcomed by the ethical companies as setting standards and requiring that even the smallest manufacturer set up good standards of drug control, purity and advertising honesty. The Government during the war showed how it could integrate and finance the research of many scattered pharmaceutical manufacturing companies. (In this connection, Burlington writes that the $25,000,000 spent by the Medical Research Council during the war was the greatest government bargain since the Louisiana purchase.)

These reflections are prompted by a perusal of *The Odyssey of Modern Drug Research*, by Robert Burlington, recently published by the Upjohn Company and briefly reviewed* in this JOURNAL. It makes us doctors grateful for the fact that our pharmaceutical manufacturing industry is willing and able to take the financial risks of research. Certainly without the private enterprise of our American drug trades, we doctors would not be where we are today. It's a nice thing to remember the next time the detail man comes around.

ATTENDANCE AT MEDICAL MEETINGS

The county medical societies, hospitals, and local academies of medicine in New Jersey go to great effort and not a little expense to provide medical lectures and meetings for the profession of this state. Each year the quantity and quality of these presentations show steady improvement. Review of the programs shows that prominent men of medicine from all over the country, and even from outside the United States, are invited to speak. These meetings are usually planned for periods which do not interfere with physicians' hours. Yet one cannot help but be impressed by the relatively poor attendance that many of these meetings command.

In view of the absence of a medical school in New Jersey, and increasing difficulties in traveling to New York and Philadelphia due to worsening traffic conditions, the physicians of this state should consider themselves fortunate that such a wealth of material is made available to them throughout the year. Besides increasing one's knowledge by hearing talks from leaders in their fields, there is an opportunity to see and converse with the nation's prominent physicians and scientists. The variety of topics covered by these programs is so wide and interesting, that some are sure to attract the interest of every doctor in the state.

Each of us benefits by attending as many as possible of these medical lectures and seminars. They represent practical, compact postgraduate education at its most vigorous. Faithful and consistent attendance at meetings is the best insurance against intellectual and professional stasis.

R. D. G.

* See page 488 this issue.

OCCUPATIONAL AND INDUSTRIAL DERMATOSES *

STATISTICAL AND ANALYTIC SURVEY OF 3042 CASES

BART M. JAMES, M.D., and J. BLEIBERG, M.D., Newark, N. J.

At the beginning of World War II, when large numbers of workers were required in industry, occupational and industrial dermatoses became a major problem as one of the chief causes of time lost from work. At this critical time in our nation's history, a second mass migration of workers to industry is underway. This requires a better understanding of industrial and occupational dermatoses. It was felt that much could be gained from a survey of our cases during the period from 1935 through 1950.

We have analyzed the records of 3042 patients who presented themselves with dermatoses allegedly the result of occupational or industrial contacts. In each case, the diagnosis was arrived at after careful history and physical examination. Where indicated, patch tests were used. In many cases, visits to the place of employment were made, and where not enough information was available from the patient or the employer as to the exact nature of the alleged offending substances, the manufacturer of that substance was asked for further information. History taking was probably one of the most important single elements in arriving at a diagnosis. In cases of persistent, stubborn eruptions of the legs, peripheral vascular examinations were made, including oscillometric readings.

All cases were classified into the following broad etiologic groups:

1. Primary irritants.
2. Sensitizers.
3. Trauma.
4. Wet work.
5. Cleaners.
6. Petroleum products and chlorinated petroleum derivatives.
7. Physical agents.
8. Infections, primary and secondary.
9. A miscellaneous group which was predominantly either physical or traumatic in origin but which included unusual cases such as beryllium granuloma, skin malignancies, traumatic herpes zoster, lupus erythematosus, occupational vitiligo, and parasitic infestations.

A great variety of skin diseases of occupational or industrial origin was observed. This group included primary irritations which ranged from mild erythema to widespread exfoliative dermatitis; dermatitis venenata caused by substances which sensitized only one or two individuals in a large factory, and cases of dermatitis venenata which involved almost every worker in a plant. Early in 1950, the authors were called on to survey a chocolate factory where over 80 per cent of the workers were complaining of dermatitis and urticaria; three of these employees also had intermittent vasomotor rhinitis and asthma while at work. Our studies showed that a particular type of grass fiber bag in which the crude chocolate was shipped from South America was the responsible sensitizer. This bag was known as the Bahia bag. All affected individuals reacted to both patch and intradermal tests. Five of the patients also reacted to patch tests to the wooden cases in which cocoa butter was shipped. African bags and another type of South American fiber bag gave 100 per cent negative reactions. The three patients with respiratory involvement all gave strong positive family histories of atopy. We have also seen dermatitis involving entire gangs of longshoremen who had been unloading drums of cashew nut oil. The same oil was seen to sensitize all three workers in a small cooperage where barrels which had contained cashew nut oil were being cleaned. A case of cheilitis with vasomotor rhinitis was observed in a musician who played a wind instrument made of coco bolo wood. She cleared up promptly when she substituted a maple flute. Coincidently, we have observed the increased frequency with which we are seeing pharmaceutical workers, doctors, dentists, and nurses who are becoming sensitized to antibiotics.

Trauma produced by glass wool used in insulation resulted in many cases of pruritus, frequently with associated foreign body abscesses and furunculosis. This was observed

* Presented before the Section on Medicine, The Medical Society of New Jersey, May 14, 1951.

particularly in shipyard workers. Friction burns, abrasions, lacerations, and callus formation were other examples of primary trauma-produced dermatoses. Three cases of herpes zoster which immediately followed trauma were noted.

Employees doing wet work were subject to an eczematous dermatitis of the exposed parts which, in our opinion, was much more common in individuals with atopic histories and in those with dysidrotic skin. Many of the latter had a history of vasomotor instability.

The dermatoses caused by petroleum products and solvents were simple erythema, vesicular bullous eruption, eczematous dermatitis, generalized exfoliative dermatitis, comedones, acne, follicular infections, abscesses, keratoses, epitheliomas, melanoses, depigmentations, multiple sebaceous cysts, atrophy, and telangiectasia. In one case petroleum and tar cancers appeared to result from photosensitization. No lesions appeared on this man during the 25 years he worked indoors, but soon after going to work in the sun, keratoses developed.

Physical agents also produced a wide variety of dermatoses. Exposure to sunlight, particularly in photosensitized individuals, brought about every type of skin change from simple erythema to cancer. There were observed five cases of discoid lupus erythematosus in workers exposed to heat, light, or explosions. One case of disseminated lupus erythematosus was seen in a nineteen year old woman who worked under intensely bright fluorescent light. This case was seen in consultation with the late Dr. Emanuel Libman who agreed at that time, that the exposure to bright light could have been a precipitating factor. Thermal and chemical burns occasionally underwent malignant change or keloidal scarring.

The increase in the number of workers exposed to radiation hazards is worthy of special note. Thus far most of our cases of occupational radiation dermatoses have occurred in physicians, dentists, nurses, and laboratory technicians. We have seen one case in an inadequately protected woman who was fluoroscoping steel parts for defects.

The primary occupational infections seen in our group of patients included tuberculosis, yeast infections, tinea profunda, Madura foot, anthrax, erysipeloid, and brucellosis.

The secondary infections which were seen, were produced by a wide variety of organisms and were usually superimposed on traumatized areas of skin. We have already mentioned herpes zoster as an occasional result of industrial trauma.

Occupational dermatoses are frequently superimposed on pre-existing skin diseases. This type of case often leads to complicated litigation. For example, both authors testified in a compensation case in which the plaintiff suffered from psoriasis of his knees, elbows, palms and soles. The dermatologist for the plaintiff agreed with the diagnosis, but maintained that the pre-existing psoriasis had been aggravated by industrial trauma. The alleged traumatic agent in this case was Army foot powder. This patient was awarded total disability for alleged aggravation of his psoriasis. In another group of cases, formaldehyde, used in a leather tanning process, caused a severe dermatitis in a number of workers. The involved areas in all cases were the hands, feet, eyelids, axillae and groins. All these patients were hyperidrotic. A visit to this tannery disclosed a total lack of ventilation facilities. Rather than install them, the owner moved his plant to another state. Two cases of previously undiagnosed tertiary syphilis with gumma formation in industrially traumatized areas were also seen. Atopic individuals, especially those with hand eczemas, proved to be particularly susceptible to dermatitis when exposed to wet work, cleaners, sensitizers or irritants. We have seen psoriasis, lichen planus, and even common warts invade industrially traumatized areas of skin (Köbner phenomenon).

We had one case of immersion hand, in a man who was exposed to industrial refrigerants, and two cases of immersion foot (trench foot) in men who worked in a cold, wet environment. These three cases had been previously misdiagnosed, and proper diagnosis was only made after peripheral vascular examination. All three showed markedly decreased or absent oscillometric readings, and peripheral pulsations were weak or unobtain-

able. All three of these patients suffered recurrent crops of bullae in the involved areas with occasional secondary infection which was very difficult to control. The attacks persisted even after change of occupation.

In 1945, dermatitis venenata caused by industrial contacts, provided there was no willful self exposure, was made compensable under the New Jersey law. On January 1, 1950, all occupational diseases (with a few specified exceptions) were made compensable by amendment to the New Jersey Compensation Act. Prior to that time, only conditions resulting from trauma plus a specified group of ten diseases had been considered compensable. The Compensation Act of New Jersey as amended, effective January 1, 1951, increases the amount of weekly compensation for temporary disability. Because of ambiguous wording of the amendment, there has been some doubt as to whether this increase would apply in cases of permanent disability. The attorney general of New Jersey has recently ruled that it does *not*, but further clarification will probably be required. Occupational eruptions account for a large proportion of all compensable industrial diseases. For these reasons greater emphasis must be placed on proper screening of workers, more adequate safeguards and prophylaxis, and above all, accurate diagnosis and treatment.

In the screening of workers, a careful preemployment examination is essential. The physician should, where possible, eliminate prospective employees with dermatoses which might be aggravated by the type of employment. The examiner should make himself familiar with those anatomic and physiologic variations in the skin which would predispose toward occupational disease. For example, workers with very fine textured skin, as well as those with dry or senile skin, should not be employed where they will contact strong primary irritants. Applicants who are light-sensitive (blondes and people with red hair and freckles) should not be hired in industries where petroleum products are used. Persons with a history of former skin sensitization should be refused employment where the work would entail contact with known sensitizers. In some industries, individuals who do not perspire freely are to be preferred while in others, a moist skin may be advantageous. Any one with a severe chronic dermatophytosis should not be employed until he is free of eruption. We do not feel he is more likely to develop industrial skin diseases, but the tendency to "id" reactions on the hands will frequently result in claims for compensation.

Physicians engaged in pre-employment examinations should learn to recognize those applicants with tendency to vasomotor instability. They should be trained to recognize the psychopath, the neurotic and the emotionally unstable person who might produce factitial dermatitis, either to obtain sympathy or to claim compensation. For example, we saw one woman who repeatedly used escharotics on her wrist until gangrene developed with resultant amputation of the forearm. The mentally incompetent and the frank psychotic must be refused employment. Accident-prone individuals should be better recognized and not employed in potentially hazardous work. We were struck with the number of "repeaters" who, even after a change of occupation, would somehow manage to injure themselves or develop industrial dermatoses. For example, a man was observed with seven attacks of cashew oil dermatitis in a period of three years, most of which might have been avoided by proper hygiene.

Race and age are also factors to be considered in job assignments. Dark skinned individuals are less affected by exposure to light, heat and petroleum products. Senile skin reacts very poorly to wet work.

Safeguards and prophylactic measures in industry are best worked out as the result of experience. Frequent consultations should be held with the plant physician, the industrial chemist, and the plant manager in an effort to prevent industrial eruptions. In a local factory which manufactures scissors, clippers and other cutting instruments, fifteen cases of dermatitis of the hands caused by contact with a metal cleaner were seen. Substitution of an equally effective cleaner cleared up more than one-half of these cases in a short time, and no new cases were seen.

Cleanliness of environment lessens industrial exposure, as do proper ventilation and the use of suitable exhaust fans. Wherever irritating volatile substances are being used, closed methods of manufacture should be employed. Education of the workers in regard to work hazards and necessary precautions, has substantially reduced the number of cases of dermatoses wherever it has been tried. Proper clothing embodying the desired degree of porosity and protection, prevent many dermatoses. Clean work clothes, dust proof lockers for storing street clothes, showers and clean towels for workers also cut down the incidence of skin diseases. A large proportion of occupational dermatoses are produced by hand cleaners used by the workers. Many of these cases are preventable if blander cleaners will be used. In some cases, protective ointments and creams are commercially available, but it must be remembered that these too may be sensitizers. We have seen one case of dermatitis caused by a popular commercial protective cream, with strongly positive patch tests. Masks, gloves, goggles, and other protective devices should be used wherever they may prevent industrial disease.

A very large group of our cases was referred to us for severe dermatitis which occurred as a result of over-treatment, or as a result of treating minor abrasions with known sensitizers. The plant physician and plant nurse should be familiar with simple dermatologic therapy. Antibiotic ointments, chemotherapeutic ointments, and stimulating remedies frequently increase the period of disability. The worst offenders in this regard are butesin picrate, sulfa drugs, penicillin ointment, ammoniated mercury, nitrofurazone ointment, and the commercial mercurial antiseptics.

Recently we saw a case of multiple tar cancers in which tar keratoses had been present for five years. This tar worker had never had a physical examination in his thirty years on the job, and he continued to work with tar for one year after epitheliomas were clinically evident. Periodic examinations should be made in so hazardous an occupation.

In this study, 3042 cases were reviewed. Of this number 2445 (80 per cent) were males and 597 (20 per cent) were females; 2046 cases (68 per cent) were occupational, and 996 (32 per cent) non-occupational. In the occupational group, 32.5 per cent were caused by sensitizers. Petroleum products and petroleum derivatives accounted for 21 per cent. Trauma produced 14 per cent. Primary irritants produced 20 per cent of which 8.7 per cent were caused by cleaners, 6.6 per cent by acids and alkalies, and 4.8 per cent by soap and water or by water alone. Infections, primary or secondary, totalled 5.5 per cent of the cases and physical factors such as heat, light, cold, dampness and explosion accounted for 5.2 per cent. The miscellaneous group previously mentioned made up 2.3 per cent.

For statistical purposes, all cases in this study were classified into broad groups as to occupation; and 266 patients were classified in more than one group. For example, a patient who received a minor abrasion and subsequently developed a dermatitis venenata, was classified both under sensitizers and under trauma. Twenty per cent gave a history of pre-existing skin disease which we considered as possibly predisposing to industrial or occupational skin diseases. This group included the various manifestations of atopy, seborrheic dermatitis, psoriasis (Köbner phenomenon in traumatized areas), dysidrosis, actinic skin, icthyotic skin, senile skin, and psychoneurotic and psychotic skin manifestations.

The doctor is often asked about the advisability of removing a patient from the job. The experience has been that workers exposed to petroleum products, primary irritants, and wet work will occasionally be able to tolerate their work if they use protective applications and employ proper cleanliness and prophylaxis. However, if the eruption continues in spite of these measures, a change of job is indicated. With sensitizers, further exposure usually aggravates the eruption, and if it is not possible to change the materials with which the affected individual works, he should be transferred to another job.

The following unusual occupational skin diseases were seen: a slaughterer of horses presented himself with an erythematous, pruritic, papular erup-

tion involving the arms and hands. He stated that every time he came in contact with horse blood, he began to itch and the eruption would appear. A strongly positive reaction to a patch test with horse blood was obtained in less than forty-eight hours. Another worker was referred with a markedly swollen, slightly tender area on the dorsal surface of the right hand. He stated that an air hose inadvertently was brought in contact with the finger web between the second and third fingers. Examination revealed tissue crepitus in the involved area. A diagnosis of traumatic emphysema was made. The process subsided after three days. A similar accident produced paraffinoma when a grease gun was forced against a finger. In our "miscellaneous" group, we have included one case of scleroderma of the hand which followed trauma. This case was decided in favor of the plaintiff, although we could establish no direct relationship. We have previously mentioned one case of immersion hand and two cases of immersion foot which were included in the group produced by physical agents. In this connection, we have seen several cases of long continued swelling and discoloration of the feet after relatively minor trauma. Examination of these cases from the vascular point of view disclosed underlying peripheral vascular pathology. One patient in this group was a severe diabetic whose foot was recently amputated after a relatively minor industrial injury.

In the group of infections we included two cases of tuberculosis verrucosa cutis, one of which occurred in a sanitarium attendant who lacerated his finger on a sputum cup, and the other in a veterinary surgeon who pricked his finger with a needle. Observed in this group was one case of Madura foot which followed a laceration of the ankle in a stable worker. Positive cultures for actinomyces were obtained. Also seen were two cases of brucellosis, one in a butcher and the other in a veterinary surgeon. The presenting symptom in both of these was urticaria. A farmhand was seen with tinea profunda of the bearded portion of the face and neck. Cultures from the lesions were identical with those obtained from his cattle. Three cases of anthrax also appeared in our list of infections. One involved the legs of a mounted police officer, and the other two were workers in a local carpet factory. Only two cases of erysipeloid of Rosenbach were seen, one in a meat handler and one in a fish handler. Syphilis, certainly not an industrial disease *per se,* accounted for two cases which were listed both under trauma and infections. Both gave a history of contusion with subsequent appearance of typical tertiary luetic lesions in the traumatized areas.

In the miscellaneous group were included seven cases of occupational vitiligo, two of which were caused by adhesive tape used as protection while at work, and the other five by contact with rubber products. Three of these cases were Negroes. Also seen in this group were fourteen cases of insect bites. Thirteen of these were contracted in the office of a factory infested with fleas, and one was in a field worker.

In the group of physicians, dentists, nurses, laboratory technicians who received x-ray burns, two of the cases were complicated with other diseases possibly caused by radiation. One was a physician with an anaplastic squamous cell carcinoma of a finger who also had chronic lymphatic leukemia, and the other a dentist who had an anaplastic carcinoma of a finger, and generalized lymphosarcomatosis. The authors felt in both these cases that the epitheliomas were caused by local radiation over a period of years, and that the leukemia and lymphosarcomatosis were probably produced by generalized radiation with absolutely no protection.

The non-occupational group which consisted of 996 patients was classified under 76 distinct diagnoses. Dermatophytosis, which included "id" reactions, accounted for 159. Eighty-three patients in this group had seborrheic dermatitis while 55 had psoriasis. There were 57 cases of scabies and 46 atopic eczemas. Thirty-four patients had urticaria and 23, varicose eczema. Lichen planus accounted for 39 and neurotic manifestations, including self-induced eruptions, totalled 23. The largest single group of the non-occupational diseases, consisted of 165 cases (5.4 per cent of all cases reviewed) of "nummular eczema". This condition is probably responsible for more confusion in the differential diagnosis of industrial eruptions than any other non-occupational skin entity. Many authors have felt that this disease is aggravated by irritants, sensitizers, cleansing agents, and wet work. Fifty patients in this group of 165 had previously been treated by other physicians as industrial. Nummular eczema is a disease of unknown etiology with a marked tendency to recurrence. The attacks in many of the cases appear seasonally, usually in the spring and fall. The disease manifests itself as multiple, circular or oval, variously sized patches with vesicular borders on an erythematous base which involve the hands, arms, legs and feet. The trunk, face and neck are rarely affected. In extensive cases, the patches tend to fuse and lose their characteristic morphology, however, the majority retain sharply demarcated, scattered, circular or oval lesions with areas of healthy skin between them. We cannot con-

ceive of any contact dermatitis, regardless of its cause, which would select six or eight or a dozen spots haphazardly on the arms and legs, and leave the major portion of the exposed skin uninvolved. Nummular eczema affected patients in every one of our occupational classifications, and we felt that it bore no relationship whatsoever to occupational or industrial contacts. In an attempt to prove this point, the records of one thousand private non-industrial patients seen between 1945 and 1946 were studied. Fifty of these, that is, 5 per cent, had been treated for nummular eczema. This is almost the same incidence as in our industrial group. One of the major criteria for the establishment of a diagnosis of industrial eruption demands that the dermatitis should disappear in a reasonable time, after the patient is no longer in contact with the offending substance. This is not true in "nummular eczema". The mere presence of a skin disease with a positive patch test does not necessarily mean that the substance tested for, caused the eruption, particularly because so many patch tests are done with primary irritants which would give a positive reaction in all tested individuals.

Where reasonable doubt existed as to occupational etiology, a practice was made of giving the benefit of the doubt to the patient. However, we saw one case of varicella which had been treated as industrial, as well as one case of dermatosis papulosa nigra. Other cases which were absolutely not industrial in origin which we have seen treated as "occupational" included scabies, erythema multiforme, lichen planus, secondary syphilis, lichen chronicus circumscriptus, pityriasis rosea, erythrasma, arsenical keratoses, balanitis diabeticorum, and sarcoid of Boeck. We selected these for mention because not one of them could conceivably be occupational in origin, directly or indirectly.

SUMMARY AND CONCLUSIONS

1. In an effort to profit by experience with industrial and occupational dermatoses in the period from 1935 to 1950, a survey of 3042 cases of occupational and industrial dermatoses seen during that period was made.

2. These patients were classified as to sex as well as to type of employment.

3. The offending agents were listed and classified into broad groups.

4. Diagnosis and its problems were discussed.

5. Methods of prophylaxis and prevention of occupational disease were brifly mentioned, including those conditions which predisposed to industrial eruptions.

6. The dangers of over treatment and treating with sensitizers were brought out as causes of prolonging disability.

7. Periodic physical examinations of workers engaged in hazardous industries was advised.

8. 2445 patients (80.3 per cent) were males and 597 (19.7 per cent) were females.

9. 2046 cases (67.6 per cent) were occupational in origin.

10. 996 cases (32.4 per cent) were non-occupational.

11. Thirty-two per cent of all the industrial cases were produced by sensitizers. Petroleum and petroleum derivatives accounted for 20.6 per cent. Trauma produced 13.8 per cent. Primary irritants produced 20.1 per cent of which 8.7 per cent were caused by cleaners, 6.6 per cent by acids and alkalies, 4.8 per cent by soap and/or water, 5.5 per cent by infections, 5.2 per cent by physical agents, and 2.3 per cent by miscellaneous factors.

12. A group of unusual occupational diseases was briefly discussed.

13. The group of patients with non-occupational diseases who presented themselves as occupational was briefly listed.

14. Cases of nummular eczema in 165 patients have been presented. This disease is not occupational in origin, and is just as likely to be aggravated by home contacts as by industrial irritants.

15 Washington Street

31 Lincoln Park

CANCER DIAGNOSTIC SERVICES IN NEW JERSEY

W. G. BERNHARD,[1] M.D., Newark, N. J., A. J. CASSELMAN,[2] M.D., Trenton, N. J., and E. L. SHAFFER,[3] Ph.D., Trenton, N. J.

Under the present system of American medical practice, there are certain areas of the overall health program in which some type of state agency can function more effectually than private agencies. Thus there are legally established areas of state operation. In addition to operating such programs, these agencies can legitimately engage in research and education in fields related to the general problem of public health. The fruits of such research and the development of new approaches to the diagnosis and treatment of disease can be made available to private practitioners. Furthermore, governmental grants of funds to private groups or individuals for similar purposes are desirable and do not distort our present system of private medicine. In fact, much is gained by a proper association of government and private agencies or individuals. Cancer is an example of a field in which private and state agencies can cooperate in facing the general and specific problems of this disease.

The New Jersey Society of Clinical Pathologists in cooperation with the New Jersey State Department of Health has evolved a program which is a concrete example of how a private group and a public agency can cooperate to meet a need in the study of cancer. The area in which each agency functions represents phases that are complementary and not competitive. Thus, not only are the broader aspects of the cancer problem served, but also the individual needs of the practicing pathologist and the private physician.

The limits of operation have been well defined and represent no encroachment in either direction. The object of this paper is to present to the New Jersey medical profession a brief report on the operation of this program during the fiscal year ending June 1, 1951.

We like to call our project "The New Jersey Plan" without prejudice or knowledge of whether a similar plan exists in other states. The cooperative relationship developed out of the original plan for tissue diagnostic service which was outlined four years ago in this JOURNAL.[4] At that time the Advisory Committee on Cancer Control of The Medical Society of New Jersey announced:

"(1) Members of the New Jersey Society of Clinical Pathologists and other recognized pathologists will provide the diagnostic skills, (2) physicians desiring to avail themselves of this service will send tissue specimens to the pathologists of their choice, (3) tissue specimens taken by private practitioners from their indigent patients attended privately, not in hospital clinics, will be processed and diagnosed gratis. The pathologist's customary fee will be charged all others."

This agreement (which has been in force to date) makes available under properly controlled auspices a state-wide diagnostic service which retains all the benefits of private practice without denying to anyone the opportunity of such services because of economic status. Recently the same sort of service for the examination of Papanicolaou smears has been made available by the New Jersey Society of Clinical Pathologists. This type of service is evidence that the pathologists of New Jersey are aware of their responsibilities to develop a program designed to make early recognition of cancer available to all regardless of economic status. Because such a program has been developed by a private agency there is no necessity for a public agency to undertake a program of diagnostic service in this field. If full and proper advantage of the program were utilized, such a plan would constitute the best approach to the solution of the diagnostic program for cancer. The facilities for such services in this state already exist in the laboratories of the pathologists and there is no need for duplicating these services.

The New Jersey State Department of Health through its Section on Pathology has

1. Director of Laboratories, St. Barnabas Hospital.
2. Director, Division of Laboratories, State Department of Health.
3. Principal Histologist, State Department of Health.
4. THE JOURNAL of The Medical Society of New Jersey, 44:41, February 1947.

contributed to the diagnostic service plan by offering direct technical assistance to pathologists on request. When initiated in 1947, the program was largely educational and preparatory toward establishing a well equipped histologic laboratory under the Bureau of Cancer Control in the New Jersey State Department of Health. With the reorganization of the State Health Department under the present Commissioner[5] all laboratories in the Department of Health were brought into a Division of Laboratories under the direction of one of the authors.[6] The previous "Cancer Laboratory" was placed in the Division of Laboratories and named "The Section on Pathology". Except for change in personnel and location, no real changes were made in the original program outlined in 1947. However, the program was immediately activated to a degree not previously attempted. One of the most important factors in spelling the success of the program was the field work of one of the authors[7] who made regular visitations to the pathologists of the state in their own laboratories in order to meet each one personally and discuss the advantages that would accrue by cooperation in a program of reciprocal assistance. The response to these field trips was enthusiastic and has aided materially in forwarding the projected program.

The New Jersey State Department of Health entered into the program with well equipped laboratories and experienced personnel to carry out its portion of the operation. Its function was and is to offer the pathologists of this state: (1) facilities for obtaining histologic services not readily available to each of them in their own laboratories, such as special staining, microphotography et cetera; (2) to act as a coordinating center for the consultation board (for tissues presenting diagnostic problems) operated under the auspices of the New Jersey Society of Clinical Pathologists, the Section on Pathology supplying technical and clerical assistance; (3) to operate a tumor registry whereby pathologists would have a variety of tumor material available for study and research; (4) to prepare an educational series of slides with descriptive material for each slide. These would be requisitioned by pathologists throughout the state for teaching purposes and for loan to physicians wishing to study for a specialty Board examination; (5) to arrange meetings and seminars in cooperation with the Society of Clinical Pathologists for the study of neoplastic disease; (6) to defray expenses for such meetings and prepare microscopic sections and case histories in advance; (7) to evaluate newer technical methods and promote the use of proved technics in the study of cancer. Through use of these facilities, the work of pathologists in this state has been greatly enhanced.

The New Jersey Society of Clinical Pathologists (through its individual members) submits tumor tissue to the Section on Pathology. These tissues are the sole source of material used by the Section in connection with its various projects. The State Department of Health, through its Section on Pathology acts as a clearing house for the pathologists in New Jersey and assists them in rendering service at the community level. The success of this program will be in direct proportion to the degree of participation by the pathologists. So far, participation has been most encouraging and forecasts the successful continuation of this joint program. In the past year, over 300 tumors of the more unusual types and tissues of allied diseases have been submitted by the pathologists to the Section on Pathology; of these some 60 have been submitted to the board of consultants, which is composed of four pathologists from the membership of the Society.[8] These doctors serve on a voluntary basis and on a rotation plan.

During the year, four seminars were held on various types of tumors and the attendant problems of differential diagnosis. The response of the members of the society[8] was most gratifying in the form of attendance and participation from all parts of the state. The State Department of Health, through a budgetary allotment in the Section on Pathology defrayed the expense of out-of-state moderators for the seminars. In addition, representative

5. Daniel Bergsma, M.D., is the Commissioner of Health.
6. A. J. Casselman, M.D., is Director of this Division.
7. E. L. Shaffer, Ph.D., Principal Histologist to the Department.
8. The New Jersey Society of Clinical Pathologists.

slides and case histories were prepared for each member of the Society.[8]

This type of a cooperative program between a private and a state agency is a practical demonstration of what can be accomplished constructively in the way of fostering a joint program for advancing our knowledge of cancer. The program should be maintained and expanded in order to help those unfortunate individuals afflicted by malignant disease, by rendering early and accurate diagnoses to all citizens of the state regardless of economic status. We wish to emphasize that (1) a state agency such as the Section on Pathology can contribute much to private practitioners of medicine without entering into the diagnostic field; (2) that ample facilities for the early diagnosis of cancer already exist in this state; (3) that in the field of cancer diagnosis, the importance of direct relationship between clinician and pathologist is paramount; this is lost, to a considerable degree, wherever a "central" diagnostic agency assumes this role; and (4) this plan is consistent with present-day developments in public health administration generally, since local health groups are encouraged to solve their own problems with aid and direction from the state levels.

685 High Street, Newark
17 West State Street, Trenton

PSYCHOSURGERY *

Archie Crandell, M.D., and Edward Kessler, M.D.,
Greystone Park, N. J.

In a previous communication[1] a preliminary report of the psychosurgery done at Greystone Park State Hospital was presented to this Society. The definitive report has been published[2] and the present communication deals with a follow-up study of this group and recent work done in psychosurgery at Greystone Park.

The original study by the Columbia-Greystone Associates was essentially a research project to determine the effects of the topectomy operation on human psychotic subjects. Of primary importance was the determination of the critical area or areas of the frontal cortex which, when removed, would exercise a beneficial effect on the psychotic process. As a result of this study, it was felt that a beneficial effect appeared only if areas 9 and 10 were included in the operation.

A second study was conducted by the Columbia-Greystone Associates[3] to determine the advantage or disadvantage of various types of operative interference with the critical areas; under-cutting, thermocoagulation, venous ligation as well as thalamotomy were all tried. It appeared from the study that none of these procedures had any advantage over the original selective partial ablation or topectomy.

A third study was instituted to determine, if possible, the type of psychotic manifestation which, if present, would suggest the necessity for psychosurgery; or to determine other possible criteria for the operation.

The original group included twenty-four patients who were operated upon and twenty-four who served as controls. Their present status is as follows: Of the twenty-four who received topectomies, ten are out of the hospital in the community, seven having been discharged following an observation period of more than a year, three as recovered and four as improved. Three patients have since died, one six months after operation; one, two years after operation; and one who was in the community more than a year and discharged as improved; later was readmitted and died in the hospital. Eleven are at present in the hospital, seven of whom were able to leave for varying periods of time but had to be returned. Four were never well enough to leave the institution.

In the group of twenty-four controls there have been no deaths. Six of the control group received a later operation of the conventional

* Read before the Section on Surgery, Annual Meeting of The Medical Society of New Jersey, May 14, 1951.

1. Crandell, Archie: Journal of The Medical Society of New Jersey, 45:480 (1948).
2. Mettler, Fred A., Editor: *Selective Partial Ablation of the Frontal Cortex*, Paul A. Hoeber, Inc., New York, 1949.
3. Mettler, Fred A., Editor: *Psychosurgical Problems*, Blakiston, Philadelphia, 1951.

prefrontal lobotomy type and two are out of the hospital, one being discharged and one still being carried on visit; three others were temporarily out of the hospital and returned, and one never left the hospital. Of the eighteen controls who never received any type of operation, four were discharged following more than a year's period of observation in the community, three as recovered and one as improved. Eighteen of the control group are still in the hospital. Thirteen of these never left the hospital; five have been out and returned after varying periods of time.

While the original study was an outstanding example of the principle of cooperative research under the direction of Dr. Fred A. Mettler, there were certain drawbacks when considered as a standard therapeutic procedure in a large state mental institution. The procedure is time-consuming, requiring up to five hours per patient. It is demanding of the highest skill and technic in surgery and requires a fairly large surgical team, as well as extensive postoperative nursing procedures. The expense involved is more than the budget of a tax-supported institution can carry as a routine treatment procedure.

Informal discussion between the editor of the project and Dr. Walter Freeman resulted in a suggestion that the critical areas might be approached from a different direction. The thin orbital plate separating the orbital cavity from the frontal lobes suggested an easy route of access to this area. Dr. Freeman[4] suggested the title "transorbital lobotomy" for this procedure. During the second project at Greystone Park he demonstrated this technic on nine patients.

This new approach lends itself to routine state hospital procedures because of its economy of time, personnel and material. A series of 150 cases have been performed at Greystone Park and is being reported today.

A detailed description of Freeman's technic is available in his book[4] as well as a historical approach to the operation, which had first been attempted by Fiamberti in Italy and then lost sight of until interest in approaching these prefrontal areas was awakened.

Although this is a simple procedure, the operation is not without danger. There has been one death in our series and also one case of meningitis which subsequently cleared up. It is not a precise type of operation; we do not know exactly the number of pathways cut. Our own studies on the cadaver have shown that when the transorbital leucotome is inserted beneath the upper eye-lid and punctures the orbital plate, the perforation is approximately two centimeters behind the frontal sinus. Avoiding the sinus is important because it is essential not to carry infective material from this area into the brain substance.

The point of the instrument enters the frontal lobe about three centimeters from the midline and about two centimeters behind the base of the frontal pole. There are only small vessels in this vicinity. The leucotome then enters the white matter of the frontal lobes.

Prior to operation each patient has complete blood studies and x-rays of the head. The anesthesia in all of our cases was the coma following electro-shock convulsions, administered by Dr. Amedeo Esposito. If possible, we perform the operation in the period of coma following one convulsive seizure. If the patients begin to react, two and even three convulsive seizures are given. A sterile technic is followed during the operation.

TECHNIC

During the period of unconsciousness following the electroshock convulsion, the upper eye-lid is raised with a thumb forceps and the tip of the transorbital leucotome is inserted into the conjunctival sac, care being taken not to touch the skin or the eye-lashes. The tip is then driven through the orbital plate. The shaft of the instrument is kept parallel with the bony ridge of the nose. The tip is slightly pointed toward midline. The instrument is then driven into the five centimeter mark and pulled as far laterally as the rim of the orbit will permit. This severs the fibers at the base of the frontal lobe. It is then returned to the mid-position and driven to a depth of seven centimeters from the margin of the upper eye-lid. With the instrument at this depth it is moved approximately twenty degrees medially and thirty degrees laterally from the mid-position. From this lateral position the handle of the instrument is then elevated until the shaft of the instrument is more or less parallel with the orbital plate. This gives us our deep frontal cuts.

Postoperatively, patients are given penicillin and gantrisin; and sedation if indicated. Recovery from

4. Freeman, Walter, and Watts, James W.: *Psychosurgery*, Charles C. Thomas, Springfield, Illinois, 1950.

the operation is rapid. On awakening some patients are markedly disturbed and others quite friendly. None have any idea of the surgery performed; there is little headache or pain; vomiting and incontinence are unusual. Swelling about the orbit is marked in some cases and usually all develop either one or two "black eyes". All of our patients have blood pressure and pulse readings done every half hour for the first two hours; the interval is then lengthened. They are watched closely for signs of intra-cranial hemorrhage. It is our practice to get patients out of bed within forty-eight hours, if possible. They are then transferred from the surgical ward to a ward set aside for psychosurgery.

Although this is technically a simple procedure, I am inclined to agree with Dr. Watts[4] when he states that any procedure involving the cutting of brain tissue is a major surgical operation, no matter how quickly or atraumatically one enters the intra-cranial cavity. I believe that transorbital lobotomies should be performed only in cases on which conservative therapy has been tried and failed.

The average length of psychoses prior to surgical intervention was 8.3 years, in our series. Results are displayed in the table.

Here at Greystone we think the transorbital lobotomy is the operation of choice from among all the psychosurgical procedures. And we have tried them all.

150 TRANSORBITAL LOBOTOMIES

Home Visit and Discharge	18
Home Visit	31
Allowed Short Visits Home	10
Total	59 or 39.3%

A. Number of patients remaining in hospital.. 91

Improved	57
No improvement	34
Total	91 or 60.7%

B. Patients showing improvement .. 116 or 77.4%
C. Patients showing no improvement 34 or 22.6%
D. Mental Diagnoses:

Dementia Precox	115
Involution Psychoses	19
Manic Depressive Psychoses	4
Psychosis with Mental Deficiency	4
Psychosis with Psychopathic Personality	2
Paranoid Condition	2
Psychosis with Cerebral Arteriosclerosis	1
Psychoneuroses, Conversion Hysteria	1
Undiagnosed Psychoses	1
Psychoses with Syphilis of CNS, M. V.	1

CONCLUSIONS AND SUMMARY

(1) The beneficial effects of brain surgery on human psychotic subjects are described.

(2) The transorbital approach to the critical areas of the frontal cortex is outlined.

(3) A statistical review of the patients who have had psychosurgery at Greystone Park is presented.

(4) The place of psychosurgery in the treatment regime of a state mental institution is given.

(5) The topectomy operation is well suited for research on the functions of the frontal lobe but is too expensive in time, personnel and material to be a routine treatment procedure in a state mental hospital.

(6) The transorbital lobotomy is presented as more nearly meeting the requirements of such an institution.

Greystone Park

DIABETES WEEK

National Diabetes Week, 1951, sponsored by the American Diabetes Association in cooperation with affiliate diabetes associations begins on November 11. This offers an opportunity for publicizing a health program for the development of diabetes consciousness on the part of physicians, patients and the public.

Primary purpose of Diabetes Week is to restimulate interest in the "Diabetes Detection Drive", to help find the million hidden diabetics and to guide them to their physicians for early diabetic care. It is important that this project receive the endorsement and active support of all physicians. It is recommended that each county medical society appoint a "Diabetes Detection Committee" with the suggestion that the committee consist of general practitioners rather than specialists.

The New Jersey Diabetes Association has facilities for supporting all phases of this year's detection drive. Its address is 91 Lincoln Park, Newark 5, N. J.

PAROXYSMAL ARRHYTHMIAS IN A CASE OF DIFFUSE TOXIC GOITER *

S. Rainone, M.D., Newark, N. J.

The following case of diffuse toxic goiter is reported because the electrocardiogram obtained recorded paroxysms of various types of arrhythmia in the course of one continuous tracing. This single tracing constitutes a veritable compendium of the more common disturbances of rhythm encountered by the cardiologist.

A 25 year old, male veteran of World War II appeared at the Veterans Administration Clinic, Newark, on December 7, 1950, complaining of "intense nervousness", tremors, palpitation, weakness and weight loss.

His mother suffered a "stroke" and became bedridden several years ago. His father died of appendicitis when the patient was 3 years old. He is the youngest of five children and states that two of his sisters have been under treatment for enlarged thyroid.

He was inducted in the Army of the United States in May 1944 at the age of 19. Induction examination recorded a pulse of 120, blood pressure of 148/72 with tremors of hands and trace of albumen in the urine as the only abnormal findings. He was diagnosed as "having a mild neurocirculatory disturbance" and qualified for general military service. He was discharged from service on July 31, 1945, on a certificate of disability for trench foot following prolonged exposure near Luxemburg during January 1945.

The patient states that he first began to complain of "nervousness" about nine years ago (at age 16) and that his condition became worse during service when he also developed palpitation, increasing tremors of the hands and marked weakness. He was returned to a General Hospital in the United States for the treatment of trench foot. Here his nervous condition was considered as an anxiety state. In November 1947 he was diagnosed as having toxic goiter and started on treatment with propylthiouracil. He was maintained on this drug for a year and states that he was markedly improved until about six months ago when he began to have a recurrence of his symptoms. He has had no medication for two years.

Physical examination in 1950 revealed a well developed, well nourished, white male with marked flushing of the face, sweating freely, tense, tremulous and moderately apprehensive. Temperature was 100.2, pulse was 120, blood pressure was 128/78. There was definite "staring" of the eyes but no apparent exophthalmos. The eyes were otherwise essentially negative with normal extra-ocular movements. The thyroid was palpable with moderate symmetrical enlargement of both lobes. It was firm, smooth, movable and non-tender. There was no substernal dullness on percussion. The apex beat was forceful with A_2 greater than P_2. No murmurs or thrills were heard or felt. Examination of the abdomen was essentially negative. Neurologic examination revealed fine tremors of the extended fingers and hyperactive deep reflexes bilaterally.

He was referred on the same day to the Veterans Administration Hospital, Staten Island (New York) with a diagnosis of diffuse toxic goiter. Further studies at the hospital revealed a metabolic rate of plus 45; blood cholesterol 192 milligrams and occasional glycosuria. Blood count (including differential and hemoglobin) was normal. On admission the electrocardiogram revealed sinus tachycardia.

Thyroidectomy was performed on January 25, 1951, under Pentothal[1] cyclopropane ether anesthesia seven weeks after admission to the hospital. Pre-operative therapy consisted essentially of propylthiouracil, sedation, high caloric diet, multiple vitamins. Postoperative course was uneventful. He was discharged from the hospital on February 5, 1951.

Figure 1 shows the electrocardiogram of this patient at the Newark Veterans Adminis-

* Dr. Rainone is Chief Medical Officer of the Newark Regional Office of the Veterans Administration. This article was reviewed in the central office of the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are the result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

1. Pentothal is a brand of thiopental trade-named by Abbott Laboratories.

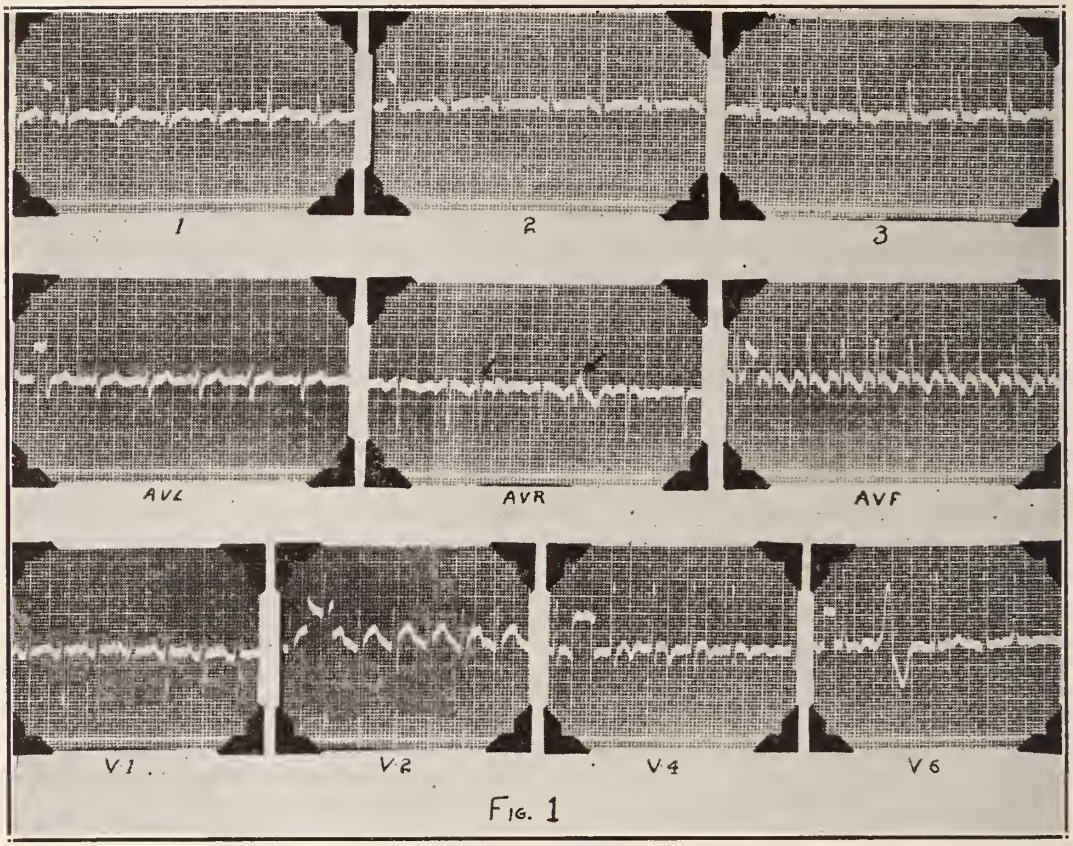


FIG. 1

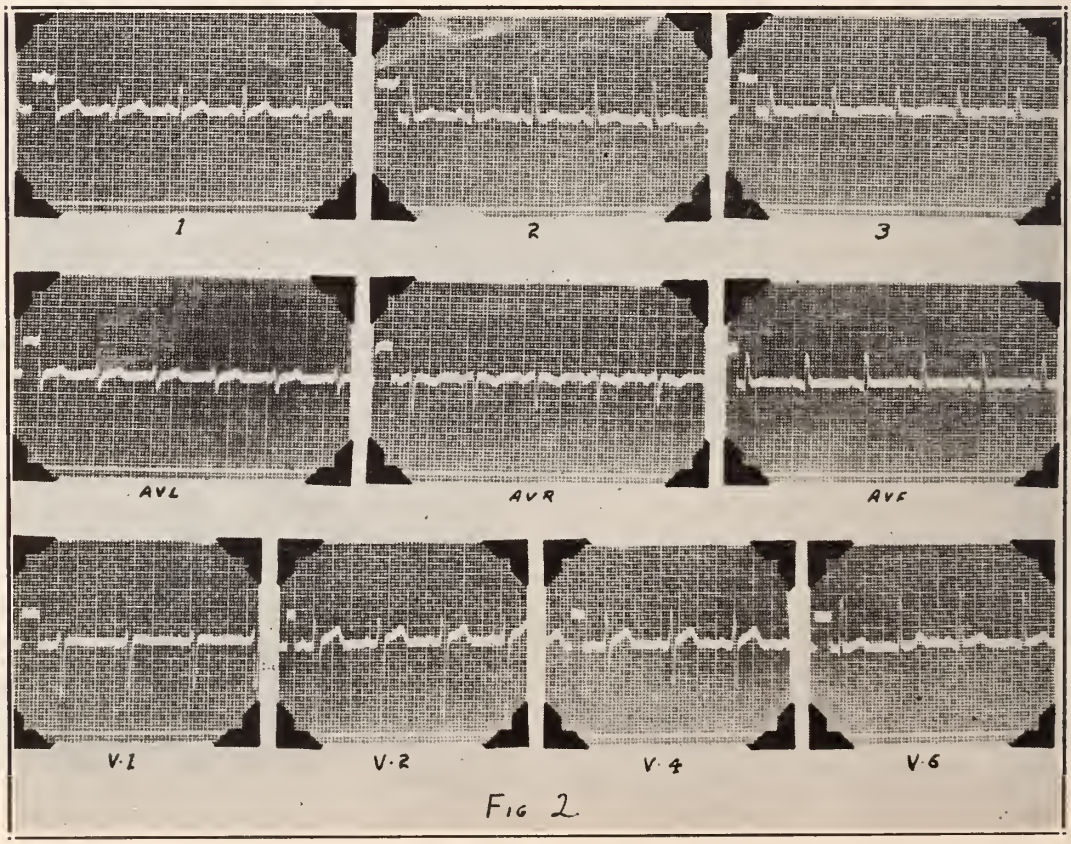


FIG 2.

tration clinic on December 7, 1950. The standard leads and AVL show a simple sinus tachycardia with a rate of 118 per minute. The sinus rhythm continues in AVR interrupted only by a premature auricular and a premature ventricular contraction. Supraventricular tachycardia then abruptly ensues as shown in AVF and continues through V_1 and V_2. Again this paroxysm is abruptly replaced by auricular fibrillation as shown in V_4 and V_6. An ectopic ventricular contraction is also seen in V_6.

As previously indicated, all electrocardiograms during this patient's subsequent hospitalization, both prior to and following thyroidectomy, revealed merely sinus tachycardia. Figure 2 taken at the Clinic on April 4, 1951, after discharge from hospital, shows merely normal sinus rhythm.

Transient arrhythmias have long been identified with hyperthyroidism and constitute one of the objective cardiac manifestations of the thyrotoxic state. In Ernstene's review of 1000 cases, 80 per cent showed no abnormalities of rhythm. Twenty per cent exhibited arrhythmias (predominantly auricular fibrillation) either fixed or paroxysmal in type. Other types of ectopic rhythms less frequently observed in this condition include premature contractions, paroxysmal auricular tachycardia and auricular flutter.

The mechanism involved in the production of auricular fibrillation and other arrhythmias in hyperthyroidism is not clearly established. There is evidence to indicate that these disturbances may be brought about by the direct toxic action of excessive amounts of thyroid hormone, or altered hormone, on the myocardium. Indirect effect upon the myocardium brought about because of the altered circulatory dynamics *per se* or in conjunction with underlying organic heart disease has also been postulated.

20 Washington Place

NORTHERN NEW JERSEY DERMATOLOGICAL SOCIETY

FREDERICK C. LICKS, M.D., Chairman

The newly elected officers of the Northern New Jersey Dermatological Society for the year 1951-52 are as follows:

President: Morris H. Saffron, M.D., Passaic
Vice-President: Eva T. Brodkin, M.D., Newark
Secretary: Frederick C. Licks, M.D., South Orange
Treasurer: Harry G. Goldberg, M.D., Plainfield.

DERMATOLOGIC PRIZE ESSAY

The American Dermatological Association offers a $300 prize for an article dealing with some fundamental aspect of dermatology or syphilology. The paper must be submitted in triplicate before December 1, 1951. For further information write to Dr. Louis A. Brunsting, Secretary, American Dermatological Association, 102-110 Second Avenue, Southwest, Rochester, Minnesota.

NEW BOOK ON TUMOR TERMINOLOGY

Probably the world's first attempt to standardize the complicated terminology of cancer is the nomenclature now made available by the American Cancer Society. Their new book on the subject is called *Manual of Tumor Nomenclature*. To obtain a copy of the book write to American Cancer Society, 47 Beaver Street, New York 4, N. Y.

THE TREATMENT OF THE FUNCTIONAL ASPECT OF SKIN DISEASES

R. YONTEF, M.D., Bayonne, N. J.

Flushing, pallor and sweating are indicators of such emotional feelings as excitement, embarrassment, shame, fear or anger. Stokes[1] says that psychosomatic factors play a role in the development of skin disorders. He recognizes that emotion is not the sole cause of skin disease and points out that multiple causation and interrelation are more liable to produce skin disorders than a single isolated cause. Certainly psychosomatic factors can be readily accepted as playing some role in the causation of a skin condition.

On the other hand, Sulzberger[2] does not believe that "nervousness" is an etiologic factor in the production of a dermatosis. He has the impression that where a relationship between emotions and dermatologic conditions exists, the instances were either (1) purely coincidental; (2) the same factor or factors produced the dermatologic manifestation as well as psychiatric or neurotic disturbances or (3) that an entirely normal reaction to the dermatosis and its maddening itching resulted in loss of sleep, worry about disfigurement, worry about the future and other related personal reactions.

My own feeling is that dermatologic complaints do *not* develop as a result of emotional problems. Rather it is my belief that functional complaints will develop following a severe, discomforting or unpleasant skin condition. Patients with an itch will often develop "nervous tension". Prolongation or exacerbation of the skin condition increases this tension which then, in turn, aggravates the existing dermatologic condition. This vicious cycle requires drastic measures to interrupt. If the "nervous tension" can be lessened it is more likely that the skin complaint also will be more amenable to treatment. For this purpose I often use phenobarbital. By sedating the patient the tension can be partly relieved. However phenobarbital is not always effective. This paper reviews results with a complete autonomic nervous system sedative which has greatly facilitated the relief of functional symptoms in patients suffering from skin conditions.

A group of 25 patients (19 women and 6 men) with various skin disorders were also treated for their psychosomatic conditions. The following dermatologic conditions were established by the usual diagnostic measure.

Dermatitis:	
allergic	2
generalized atopic	4
seborrheic	2
contact	4
vesicular	1
Alopecia	2
Acne (excoriata)	2
Chronic urticaria	2
Pruritus vulvae	2
Darier's	1
Eczema	1
Pityriasis rosea	1
Lichen planus	1

The following emotional symptoms were prevalent in the 25 patients regardless of the skin conditions.

Insomnia	19
Sweating	11
Depression	20
Anxiety	21
Hyperirritability	23
Fatigability	21

The usual therapeutic methods employed in the various conditions listed above were first instituted in all cases. The conditions did not respond dramatically and in all instances some physical symptoms were present. In some cases, phenobarbital elixir was prescribed successfully in an effort to give the patient some relief from anxiety or tension. These procedures were carried out so as to give us a basis of comparison when the new drug was given. We wanted to be sure that the placebo effect could not explain the results. When the patient's condition had been satisfactorily evaluated, a combination of hyosycamine, ergotamine and phenobarbital was given. The drug used was Bellergal.*

* Bellergal is the registered tradename of the Sandoz Pharmaceutical Company's brand of hyosycamine-phenobarbital-ergotamine combination.

When this drug was first instituted, one tablet was given three times a day. In patients with severe anxiety or tension a fourth tablet was added at bedtime. As the symptoms began to improve the dosage was decreased to two a day, and then to one a day. When the condition had cleared satisfactorily the patient was advised to take this medication only prior to any situation which might tend to produce tension or anxiety. In this way, any exacerbation of the prior skin condition unfavorably affected by tension could be avoided.

To be sure that the clearing of the emotional symptoms was due to the therapeutic action of the drug and not to any psychologic effect, I attempted to establish a level pre-drug period. Then when Bellergal* was administered I was able to observe a marked improvement in the emotional complaints, a general feeling of well-being in most of these patients, and then a more rapid rate of clearing of the dermatologic condition with the aid of specific dermatologic therapy. The combination of drugs sedating the entire autonomic nervous system apparently lessened the side reaction of the "nervous" aspect of the condition and the skin condition became more amenable to therapy. The combination acts to break the vicious cycle that exists in these patients and prevents the tension from aggravating the condition and vice versa.

Only one patient was unable to continue on Bellergal* therapy. This woman, 35 years old, suffered from seborrheic dermatitis. Eight days after initiating the drug when apparently doing very nicely, she developed a red, itchy, papular eruption over the entire body. As soon as medication was discontinued the itch and rash disappeared. When this had cleared, the medication was resumed and within a few hours a generalized pruritic eruption had developed, which disappeared 48 hours after discontinuing the preparation.

One of the important features in treating dermatologic conditions is the control of emotional complaints which arise often as a result of the skin condition itself. Tension and sweating increase the patient's fear and help delay response to dermatologic therapy. This cycle must be interrupted before good results can be obtained. I have used Bellergal* which acts as an autonomic blocking agent. This is effective in controlling the emotional symptoms. Bellergal* is a valuable adjunct to dermatologic therapy in that it adequately controls "nervous tension" and anxiety. Many patients become apprehensive when their skin condition does not clear up rapidly. When they begin to feel better, they relax. Then their dermatologic condition improves under specific therapy.

Bellergal* appeared to be more beneficial to those patients who could be described as "high strung". Women, especially, derived great benefit from this regimen. The usual course of treatment, prior to the use of Bellergal,* was slow and very uncomfortable for the patient. Many times, deep psychotherapy was necessary to get the patient to readjust himself to the emotional problems involved. The use of the new medication relaxed the patient so as to permit him to discuss and understand the problem more easily.

851 Avenue C

1. Stokes, J. H., and Beerman, H.: Psychosom. Med., 2:438 (1940).
2. Sulzberger, M. B.: *Dermatologic Allergy*, Springfield, Illinois, Charles C. Thomas (1940).
3. Rothlin, E.: Schweiz. med. Wchnschr., 64:188 (1934).

PRIZE FOR CHEST DISEASE PAPER

The American College of Chest Physicians announces a cash award of $250 for the best original contribution on any phase relating to chest disease. The deadline is April 1, 1952. For additional details write to the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Ill.

SOCIETY OF SURGEONS SESSION

Announcement is made of the Annual Meeting of the Society of Surgeons of New Jersey to be held on November 14 at the Jersey City Medical Center. For program and other details, write to Dr. William H. McCallion at 722 Westminster Avenue, Elizabeth, New Jersey.

RENAL RICKETS *

WILLIAM H. SEWARD, M.D., Orange, N. J.

The word "rickets", to denote certain well recognized bone changes in children due to nutritional deficiency and hypovitaminosis D, has been well known and understood for years. The principal radiographic findings in the early stage are rarefaction and fraying of the epiphyseal plate and "cupping" of the metaphysis in the long bones. Later these changes become more marked, and the uncalcified metaphyses at each shaft end become invisible. This results in deepening of the space between the visible end of the shaft and the epiphyseal ossification center, a sign which is pathognomonic. Later the shafts become rarefied and the cortex thins.

As more cases were observed, it soon became apparent that rickets-like bone changes could occur when no deficiency in the diet existed. Rickets tarda was described and was, and is, thought to be due to inability to utilize vitamin D, although why and how are still not understood. "Rickets" occurs with celiac disease (due to pancreatic enzyme failure), with non-tropical sprue (again due to failure to absorb D), with biliary disturbances such as obstructive duct disease or cirrhosis, (due to lack of bile salts), and with hypoparathyroidism.

The varieties of "rickets", with which this paper concerns itself primarily, are the renal osteodystrophies. These are, of course, associated with severe renal disease.

The disease "renal rickets" is also known as osteonephropathy, renal dwarfism, renal osteodystrophy, renal osteitis, and renal hyperparathyroidism with osteoporosis. As this nomenclature suggests, the picture is a variable one, and a wide range of findings is reported. The principal factors involved, as the terms infer, are bony, renal, parathyroid, and probably pituitary. Various combinations of these factors may occur. Lucas[1] in 1883 was perhaps the first to note the association of late rickets and albuminuria and to suggest that the latter might be causatively related to the former. Fletcher[2] in 1911 first described dwarfism in children with or without rickets, combined with kidney pathology, and Barber[3] in 1920 gave an accurate description of the syndrome (interstitial nephritis in children associated with stunted growth), and suggested the name "renal dwarfism". Though the disease is not common, cases have been reported by pediatricians, orthopedists, urologists, pathologists and physiologists.

I here report two cases of "renal rickets" which we have had the opportunity to observe: one an adult and the other a child.

CASE ONE

The first case was a female, age 7, admitted to Orange Memorial Hospital on February 7, 1950. She weighed 6 pounds at birth. Hemorrhage from the cord had been reported, with marked anemia and "shock". X-rays of the long bones when the baby was 5 weeks old showed "osteoperiostitis of the right tibia and fibula". Skull x-rays were said to be negative. On January 19, 1949, the child sustained a fracture of the right radius and ulna; a refracture was found nine months later. At the latter time osteogenesis imperfecta was suspected. The major items in the history were repeated fractures of the right arm, retarded growth, and deformed legs. The child's development has always been slow. She started crawling on her back instead of her knees. She had always walked on her toes and often fell. First steps were taken at age 3. At eight months the right leg was noted to be short, and bowing first appeared at one year of age.

At age 7, she weighed 37 pounds and was 38 inches tall. She looked anemic and chronically ill, and appeared about four years of age instead of the actual seven. Blood pressure was 118/80.

Significant laboratory findings were as follows:
Urine: Albumin 2 plus.
P.S.P. Total 5 per cent.
R.B.C. 3,220,000.
N.P.N. 121.8; B.U.N. 65.5; Creatinine 2.0; CO_2 combining power 28 per cent; blood chlorides 600 milligrams.
Alkaline phosphatase 65 K and A units; Phosphorus 5.4; Calcium 12.6.

This patient had been previously observed and partly worked-up at the New Jersey Orthopedic Hospital.

Briefly, films of the patient showed marked bowing deformities of both legs and forearms, with associated osteoporosis, epiphyseal cupping and fraying, and pseudo as well as true old fractures. The skull shows the fine spotty demineralization of hyperparathyroidism. Retrograde pyelograms show the basic and probably primary pathology, small polycystic kidneys.

It was felt that no specific therapy could be offered, and the patient was discharged to be followed by her family physician. Efforts were made to follow the progress of the patient, but until March 30, 1951, when she suddenly appeared again, she had refused to return.

* Read before The Medical Society of New Jersey, May 14, 1951.

CASE TWO

The second case is that of a twenty-nine year old male, admitted to Orange Memorial Hospital on February 27, 1950. He died on March 16, 1950. On admission the chief complaint was "nervous trouble". There had been a six months' story of progressively increasing pains in the arms and legs until the patient had become bedridden. The past history included a "cerebral accident" in 1943 with reported hypertension and loss of memory for four months. In 1949 the patient had a ruptured gastric ulcer at another hospital with repair and gastro-enterostomy. There was a vague story of a "leaky heart valve". Physical findings were these:

His pulse was 108; blood pressure was 120/80. He looked chronically ill, was thin, and seemed much older than 29. A cyanosis of the glans penis was noted. This progressed and on March 8 a circumcision was performed. Following this, the glans became gangrenous, the patient failed rapidly and died on March 16.

Laboratory work showed the following:

E.S.R. 25 m.m. in one hour.
R.B.C. 3,850,000. Urine: Albumin 1 plus.
N.P.N. 252; B.U.N. 168; Creatinine 3.3; CO_2 combining power 10 per cent.
Alkaline phosphatase 10 K and A units; Calcium 12.2; Phosphorus 15.6.
P.S.P. traces only; N.P.N. 277; Blood Kahn was negative.
Cholesterol 109; CO_2 26 per cent; Chlorides 380.
N.P.N. 174; Chlorides 460; CO_2 34 per cent.

Films showed a number of unusual bone changes and remarkable "metastatic vascular calcification". The former more nearly resemble the picture of hypervitaminosis D (Caffey's disease number two) than rickets. The latter amount to "pipe-stem" calcification of nearly every arterial structure, even down to the small radicals. The skull shows the typical demineralization we have come to recognize and associate with hyperparathyroidism, although the phosphatase figure was normal. This extensive calcification of arterial walls occurred with a normal blood calcium level. No urinary tract calculi or calcifications were noted.

Retrograde studies revealed extensive renal deficiency, this time with markedly contracted anomalous hypoplastic kidneys. All efforts to obtain an autopsy failed so that we shall never know the condition of the parathyroids.

Similar arterial calcification has been noted by Smyth and Goldman,[11] Shelling and Remsen,[12] and Hild.[13]

Here, then, are briefly reported two cases of severe renal damage with associated bone changes. A case similar to the child's (Case 1) was described in 1948 by Ullman and Schorr.[4]

In brief, the symptomatology and findings are chiefly: (a) Retarded growth; (b) Retarded sexual development; (c) Renal impairment; (d) Anemia; (e) Phosphorus retention; (f) Parathyroid gland hypertrophy at autopsy.

The renal impairment may be inflammatory or congenital, or both. Both of our cases fall in the latter field. This type seems to be the more common, according to Ellis and Evans[5] and Anderson.[6] Certainly when obstruction or infection exists they may be treated and possibly relieved, if recognized, preventing the dire consequences represented by these two cases. It falls to the lot of the urologist to suspect and discover the renal pathology in these cases. The urologic literature contains a number of excellent references.[7, 8, 9, 10]

A most interesting series of deductions and speculations, as well as a few substantiated facts, has developed concerning the etiology of this serious and, fortunately, rare disease. It would seem to the average clinician that a casual relationship exists between the renal and osseous manifestations, but this is not acknowledged by all workers. Pappenheimer and Wilens[14] showed that long-standing nephritis in man and the experimental reduction of renal tissue in rats produces osteoporosis and enlargement of the parathyroid glands. In our two cases certainly, longstanding renal dysfunction preceded bone and vascular changes. The bone changes in the two skulls are typical of those seen in hyperparathyroidism. It is easy to see how, radiographically, one can confuse primary hyperparathyroidism due to tumor and secondary hyperparathyroidism, possibly due to renal damage. How these changes occur is a controversial issue among the experts. A review of the literature by Kretschmer[15] in 1948 divides the theories into four main groups —renal, parathyroid, pituitary and acidosis.

1. The *renal* theory, advocated by Mitchell[16] and Parsons,[17] is that the damaged kidneys are unable to excrete the waste phosphates and that they are then excreted *via* the intestinal mucosa. This theoretically results in excessive phosphate in the bowel and interferes with the absorption of calcium, possibly by the formation of insoluble calcium phosphates. This, says Ham *et al.*,[18] explains the hypocalcemia many renal rickets patients have. However, in many cases the only skeletal change is stunted growth. Some French and German authors, notably Debre, Marie and Jammet,[19] think the bone and renal manifestations are parallel but not interdependent congenital disturbances. This idea is strengthened by the fact that other congenital malformations and functional disturbances may occur, as in the hypochloremia and renal glycosuria of Fanconi's syndrome.[20]

2. Because the *parathyroids* have sometimes been found to be enlarged at postmortem, some authorities feel the initial disturbance is in these glands insofar as the bone changes are concerned. Herbert, Miller and Richardson[21] state the sequence of events is as follows: Renal failure—rise in blood phosphate—fall in serum calcium—hyperplasia of parathyroid glands—mobilization of calcium from the bones—rise of serum calcium to normal or above—metastatic calcification.

3. Price and Davie[22] and Moehlig[23] feel, on the other hand, that if there is a single primary congenital disturbance, it is probably in the *pituitary* gland. The dwarfing, infantilism and polyuria which these patients show could well be explained thus. Charnock,[8] also favors this theory, as does Chown.[24]

4. More recently, proponents of an *acidosis* theory have appeared. Graham and Oakley[25] and Ginzler and Jaffee[26] believe that "chronic acidosis resulting directly from renal insufficiency play the important role". Both cases reported here showed marked acidosis.

Most of those interested in this problem freely admit the speculative nature of their conclusions. Renal rickets seems to be a most variable disease, and it would appear that no two cases are alike.

SUMMARY

Two cases of renal rickets are presented, one in a child, one in an adult, both with congenital renal dysfunction; one with marked osteodystrophy, the other with advanced metastatic vascular calcification. Theories of etiology as presented in a review of the literature are briefly outlined.

It is our hope that, while the disease is fortunately still rare, the attention of pediatricians, orthopedists, urologists and radiologists will be directed toward it so that early diagnosis may be effected and any remediable defect may be corrected, possibly in time to avert the usual termination in uremia.

Orange Memorial Hospital

188 South Essex Avenue

A bibliography of 26 citations appears in the author's reprints

LECTURE ON PROBLEMS OF THE NEUROSES

Professor H. C. Rumke, head of the Psychiatry Department of the University of Utrecht (Netherlands), and President of the Netherland Society of Psychiatry, will deliver the C. C. Beling Memorial Lecture on November 14, at the Academy of Medicine in Newark. Professor Rumke's topic is "Problems in the Field of Neurosis". The lecture is sponsored by the New Jersey Neuro-Psychiatric Association and is scheduled for 8:30 p. m. Professor Rumke is one of the world's best known psychiatrists and is currently chairman of the executive board of the World Federation for Mental Health. All New Jersey physicians are welcome to attend this unusual presentation.

VIOLATIONS OF MEDICAL PRACTICE ACT

The State Board of Medical Examiners has submitted a report of violations during the first six months of 1951 which may be summarized as follows:

Four pharmacists were convicted or pleaded guilty to the charge of practicing medicine without a license.

Eight chiropractors pleaded guilty or were convicted on charges of either practicing medicine or practicing beyond the scope of their chiropractic license. Two physical therapists were similarly convicted. Five naturopaths paid penalties for practicing medicine without a license.

One chiropodist paid the penalty for failing to renew an otherwise valid license.

One masseuse was convicted of practicing chiropody without a license.

The Hubbard Dianetic Foundation was charged with conducting a school teaching medicine and surgery without a charter. After a summons was served the place was closed and the personnel left New Jersey. Accordingly the case was not moved.

ASPIRATED ARACHIDIC FOREIGN BODY IN BRONCHUS WITH OBSTRUCTIVE EMPHYSEMA IN A CHILD TWO YEARS OF AGE

George A. Bradasch, M.D., Union City, N. J., and
Louis Sciarrillo, M.D., Hoboken, N. J.

A child two years of age placed some peanuts in his mouth. While running across the room he tripped and fell. Immediately he began to cough and to complain of pain in his chest. Cough and pain persisted until the following day. The patient was brought to the hospital because his neck was becoming swollen.

On admission, this 2-year old child appeared acutely ill, dyspneic, and coughed frequently. He presented swelling about the neck particularly in the submandibular region where crepitus could be felt. Some crepitus was palpable over both shoulders and the lateral aspects of the thoracic wall. There were markedly diminished breath sounds in the right chest with hyperresonance. The left chest presented hyperresonance, ronchi, rales, and wheezing type of respiration. Wheezing could be heard at the mouth during respiration.

X-ray of the chest on admission presented the picture in figure 1 which clearly shows the obstructive emphysema of the right lung, the subcutaneous emphysema of the neck, left axilla, and the soft tissues of the left side of the chest. The right diaphragm appears flattened and fixed.

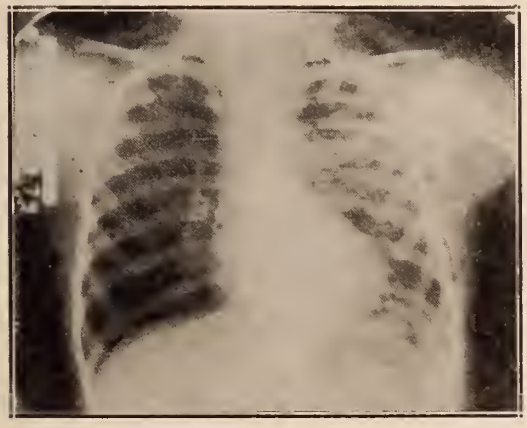


Figure 1. X-ray taken on admission showing emphysema of right chest and soft tissues of neck and thorax. Right diaphragm flat as contrasted to the left diaphragm.

Under Avertin* anesthesia (95 milligrams per kilogram of body weight) bronchoscopic removal of foreign body was done. The five millimeter bronchoscope was inserted into the trachea and at a point immediately distal to the carina a half segment of peanut was visualized in the right main bronchus. Its action as a ball valve to produce obstructive emphysema could be clearly seen through the bronchoscope.

There was a considerable amount of frothy purulent material about the peanut kernel. The mucosa of the lower trachea, carina, and the left bronchus were edematous. The half peanut kernel was removed intact with a peanut forceps and aspiration of secretion from the right bronchus was done immediately after extraction. Both bronchi were then explored for other fragments of peanut. No other material was found and the child was returned to bed. Subsequent treatment consisted of administration of penicillin, aureomycin, and elixir thephorin. Highest recorded temperature was 102.2 on the day of admission. Immediately after removal of the peanut kernel, expansion of both chests became normal and breath sounds were clearly audible in both bases. Wheezing persisted for three days with development of diminished breath sounds in the right base. Within one week all physical signs became normal. See figures 2 and 3.

Foreign bodies in the bronchi can be successfully removed by bronchoscopic extraction. Other means of removal are untenable because of the grave risk involved. Vegetal bodies are radiolucent and do not present a diagnostic shadow. Wheezing alone, unassociated with other common findings of pulmonary involvement should first stimulate an investigation into the history of onset. Foreign bodies in the bronchi have been reported as being present for variable and extended periods of time either known or unknown to the patient.

*Avertin is the Winthrop Chemical Company's trade name for a brand of tribromo-ethanol.

Figure 2. X-ray taken after removal of peanut. Both lungs show clouding due to arachidic bronchitis. Wheezing was present without rales.

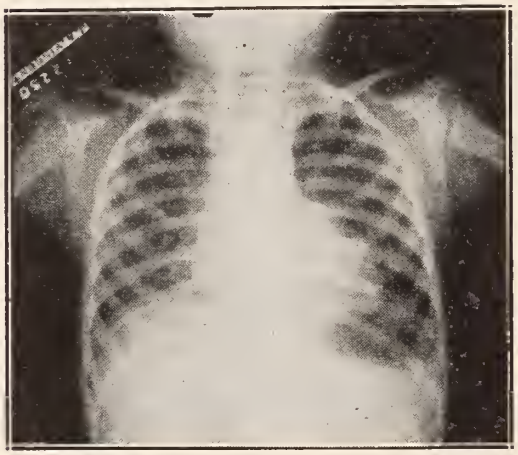


Figure 3. X-ray taken one month after removal shows normal lung.

McCrae[1] cites the presence of an atomizer tip for a period of eighteen months, and in another, a small piece of bone for eighteen months. Hill[2] reports a peanut kernel lodged in the bronchus of a child for thirty-eight days before removal. Beyreuther[3] had a patient with a goose bone lodged in the posterior wall of the trachea for nine years.

The history almost invariably will reveal an episode of aspiration, choking sensation, and cough. Subsequently, the patient may (or may not) become sufficiently ill to consult a doctor. Even if he does so, the history and findings may not excite suspicion sufficient to suggest a careful study for the presence of a foreign body.

SUBJECTIVE SYMPTOMS

The subjective findings, which are constant, are as follows:

1. *Cough or evidence of obstruction to breathing.* Foreign body in the bronchus commonly elicits cough which is a tussic effort to dislodge the irritating member from the lung. Should the coughing cause impaction, the foreign body becomes more securely lodged and continues to produce more cough reflex. Cough can be produced only if air may be forcibly expressed from the lung. When a bronchus is obstructed, cough may eventually cease or diminish because of the atelectasis which occurs, only to be reinitiated when infection sets in behind the obstructing foreign body to produce pneumonia.
2. *Pain in the chest* may or may not be present depending on the nature of the foreign body, its lodgement in the bronchus, and the amount of local tissue reaction it causes.
3. *Dyspnea* will depend upon the amount of obstruction, the degree of bronchospasm, and the degree of hypoxia resulting from these effectors.
4. *Hoarseness* following aspiration will vary according to the degree of tracheochordal irritation.

PHYSICAL SIGNS

The physical signs indicating the presence of foreign body in the lung will vary considerably. McCrae[1] states that the one sign constant in all cases is *diminution of expansion of the affected side.* This may be the only finding discovered on careful examination. It is present regardless of what type of foreign body is aspirated and persists until the removal of the offending object.

The *asthmatoid wheeze* is regarded by Jackson[4] as a sign of great importance when it develops subsequent to aspiration of foreign material, and if it can be heard at the mouth during respiration. Obviously the asthmatoid wheeze will be present only if the obstruction permits the passage of some air over the foreign body. Wheezing is a change of pitch produced by air passing through a diminished lumen under pressure. Wheezing will not occur if obstruction to the bronchial lumen is complete.

Cyanosis will be present only if the obstructing agent and the secretions it causes to be produced reduce the oxygenating surface of the lung to a level where arterial oxygenation is inadequate. The size of a foreign body, its

position, and the amount of flooding that takes place in the smaller bronchioles and alveoli, or the production of extensive atelectasis resulting from one or a combination of the effectors will determine the presence and degree of cyanosis. Cyanosis of severe degree does not generally occur except when moderately large foreign bodies are lodged in the trachea.

Breath sounds are either diminished in intensity or absent on the affected side. When obstruction is complete breath sounds disappear due to the resulting atelectasis. Breath sounds may also disappear as a result of severe bronchitis reaction resulting from irritation of vegetal substances. Beans and peanuts produce copious secretion and a severe bronchial reaction simulating pneumonia. This reaction has been designated by Jackson[4] as "arachidic bronchitis". Breath sounds on the unaffected side may be normal, or may be characterized by a transmitted wheeze and rales strongly suggesting the possibility that the foreign body might be lodged therein. The presence of small fragments of foreign body in the side opposite the major lodgement must always be considered.

X-ray studies give valuable assistance in determining the presence of opaque foreign bodies since the latter are easily visualized. There are x-ray findings which (in association with a pertinent history) are constant relative to the presence of non-opaque bodies. Fluoroscopy reveals fixation of the chest and diaphragm on the affected side. This can be demonstrated in the roentgen picture when study is made both at inspiration and expiration. Atelectasis can be determined when it results from complete obstruction, and the shift of the heart is to the affected side regardless of the phase of respiration. In obstructive emphysema there is a fixation of the affected side and diaphragm, but there is a shifting of the heart to the unaffected side on inspiration, and a return shift to the affected side on expiration.

Obstructive emphysema is an overfilling which results from an obstruction which will permit ingress of air freely, but which suppresses the normal egress on expiration. X-ray reveals increased aeration on the affected side and a relatively increased density (which can readily be misinterpreted) on the unaffected side.

Other physical findings will necessarily depend on the changing conditions within the thorax. Vegetal bodies produce severe local reactions which may give signs varying from simple bronchitis to lobar pneumonia. Obstructive emphysema may produce tissue emphysema in the neck and chest wall when air escapes from the lung into the supra-clavicular areolar tissues. Secondary infection superimposed on a chemical bronchitis may aggravate the primary condition. Cyanosis and cardiac impairment may develop rapidly. Any one or combination of complications may develop when the foreign body remains in the bronchus; the gravity of the condition becoming greater as time elapses. There is general accord among endoscopists that the risk becomes increasingly greater with the time elapsed, and is inversely proportionate to the age of the patient.

CONCLUSIONS

1. Foreign bodies in the bronchus should be removed by bronchoscopic means as promptly as they can be located roentgenographically.
2. If the foreign body is radiolucent the fixation of the diaphragm and immobility on the affected side will indicate which lung is involved.
3. Early removal of vegetal substances from children is necessary to prevent violent vegetal bronchitis.

1415 Central Avenue
105 Newark Street

1. McCrae, Thomas: The American Journal of the Medical Sciences, 159:313 (March 1920).
2. Hill, Frederick T.: Laryngoscope, 44:327 (April 1934).
3. Beyreuther, H.: Munchener Medizinsche Wochenschrift, 72:598 (April 10, 1925).
4. Jackson, Chevalier: *Bronchoscopy, Esophagoscopy, and Gastroscopy*, Philadelphia, W. B. Saunders (1934).
5. Fuller, T. E.: Archives of Otolaryngology, 10:73 (July 1929).
6. Miller, John: American Journal of Diseases of Children, 37:1251 (June 1929).
7. Suchs, Oliver: Texas State Journal of Medicine, 46:298 (May 1950).
8. Richards, Lyman G., and Walker, John: New England Journal of Medicine, 211:653 (October 11, 1934).
9. Frecker, Brian E.: Medical Journal of Australia, 2:713 (November 12, 1949).
10. Baylin, George J., and Martin, Thomas L.: North Carolina Medical Journal, 11:59 (February 1950).

ACTH AND CORTISONE IN ALLERGIC DISEASES *

William B. Sherman, M.D., New York, N. Y.

Both ACTH and cortisone have been proved to be valuable adjuncts in the treatment of many types of allergic diseases. In discussing this subject, I shall not review the extensive literature, but rather, give results based on studies made during the past year at Roosevelt and Presbyterian Hospitals in New York.

In general, we use these drugs only on patients with the most severe and intractable symptoms of allergic diseases. Selection of cases is based primarily on failure to respond to all other forms of therapy. We eliminate those with diabetes mellitus or nephritis and most of those with a history or signs of congestive heart failure. Patients have not been chosen on the basis of mental stability; while disregard of this factor led to some difficulties, several patients who might have been eliminated for this reason tolerated ACTH or cortisone very well.

The doses used have been conservative. The usual initial dose of ACTH was 20 to 25 milligrams every six hours, reduced after two or three days to 10 to 12.5 milligrams every six hours. Cortisone treatment started with 200 milligrams daily in two or four doses, reduced after two or three days to 100 milligrams daily. Small children were given one-half of the adult doses. Cortisone was equally effective if given in a single daily injection, but attempts to reduce the frequency of injections of ACTH often led to poor results. The oily preparations of ACTH (designed for prolonged action) have not been entirely satisfactory. In the doses used, the action of the two drugs has been essentially similar. Response to ACTH was slightly more rapid.

The initial course was usually continued for seven to fourteen days. Other forms of therapy were then substituted. If the symptoms recurred in a severe form, the hormone treatment was repeated. If it became apparent that no other treatment was satisfactory and if the severity of symptoms warranted, patients were maintained on cortisone after discharge from the hospital, some for periods of more than a year. The maintenance dose was determined for each patient by clinical trial. It has averaged 50 milligrams daily, administered orally in two doses a day, or by injection once a day or once in two days. ACTH is less suitable for ambulatory treatment because of the need for more frequent injections.

During the period of hormone treatment the sodium intake was limited moderately and supplementary potassium salts were given. During the first week of therapy, weight and blood pressure were observed daily and the blood sugar on about the fifth day. Continuation of treatment on an ambulatory basis was considered only when these values were stabilized. Eosinophile counts have been done at frequent intervals on most patients but have proved of relatively little value in following the course of therapy in allergic patients. Many had very high counts before treatment, often between 1000 and 2000 per cubic millimeter. Most of these showed a definite drop in a few days, but rarely to normal values. With continued treatment and progressive symptomatic improvement, the eosinophile counts not infrequently rose to approximately the initial values.

BRONCHIAL ASTHMA

In bronchial asthma we used ACTH or cortisone on all patients with severe and persistent symptoms not responding to other forms of treatment, and who had no specific contra-indication, such as diabetes mellitus. During the past year, this group has comprised upwards of 50 patients, ranging in age from 3 to 74 years, with histories of asthma for from one to 54 years. Most of these had previously been hospitalized repeatedly for asthma. Several had been essentially bed-ridden for 6 to 12 months. Eight had well marked pulmonary emphysema. Approximately equal numbers

* Presented at the Annual Meeting of The Medical Society of New Jersey, Atlantic City, May 16, 1951. This work was aided by a grant from the United States Public Health Service.

were started on treatment with cortisone and with ACTH. Several were subsequently changed to the other drug.

In all but the most urgent cases, the patient was kept for three or four days in an allergen-free hospital room while the severity of the asthma was observed and the response to other medications tested. Since asthma due to extrinsic allergens subsides promptly with such care, all of the patients given ACTH or cortisone had asthma of the intrinsic type, due primarily to respiratory infection with associated bacterial allergy. Some also showed skin reactions to extrinsic allergens. During this control period any antibiotics considered indicated on the basis of sputum or pharyngeal cultures, were given.

Early in the series, many patients were given placebo injections for two or three days to evaluate the psychologic effect of the institution of a new and widely publicized treatment. Others were given the hormones without knowing they were to receive them. It was soon apparent that suggestion played a negligible part in the results obtained. Most of these patients had already had their hopes raised and disappointed too many times. Furthermore, in really severe asthma, the response to ACTH or cortisone was considerably slower than most patients expected so that the first mental reaction was often one of skepticism.

All of the patients started on hormone treatment had required injections of epinephrine or aminophylline several times daily and many received Demerol[1] in addition. These drugs were necessarily continued as needed when ACTH or cortisone was started. Definite evidence of improvement and a decreased need for other symptomatic medications was usually apparent after three or four days, but in really severe cases the full benefit was not obtained until the seventh to the tenth day. By the tenth day of the initial course of treatment all patients were essentially free of asthma and in most cases the physical signs had completely cleared. All were up and about but capacity for exercise was limited in patients who had irreversible emphysema. Concomitant with this betterment of respiratory function, there was almost uniform improvement in general well-being, appetite, strength and mental outlook. At the end of 10 to 14 days the hormones were discontinued in most cases. All patients had a recurrence of asthma after periods varying from two days to two months, the interval apparently depending more on the previous severity and persistence of the disease than on the drug used or the duration of treatment. In about one third of the patients the recurrence was sufficiently severe to warrant repetition of hormone treatment, the results of which were similar to those of the initial course.

Patients requiring repeated courses of treatment were discharged from the hospital on maintenance doses of cortisone. In most cases treatment was occasionally interrupted either deliberately to observe the results or unavoidably through inability to obtain a continuous supply of the drug. Such treatment has been continued for periods of two to twelve months in twelve patients, all of whom had previously been chronic invalids because of asthma. A vast majority of these patients have been able to lead fairly normal lives, have gained weight and strength and have suffered no serious side effects.

Two patients with very severe asthma, both of whom responded satisfactorily to the first two courses of the hormones, have subsequently died after six to nine months of more or less continuous treatment. One, a man of 72 years with advanced pulmonary emphysema and arteriosclerotic heart disease complicating the asthma, gradually weakened despite almost continuous treatment with ACTH or cortisone and died of respiratory and circulatory failure after nine months. The other, a woman of 36 years, with severe but uncomplicated intrinsic asthma, was placed on maintenance treatment with cortisone but failed to return for adequate medical supervision. For six months she took cortisone during periods of severe symptoms and stopped when she felt better. Finally she had a severe attack but was unable to obtain cortisone for three days, then started taking 50 milligrams twice daily. She failed to improve. After 48 hours, she was admitted to the hospital in very severe asthma and a state of general exhaustion. At that time she did not improve with cortisone or any other therapy. She died three days later. In neither case was there any evidence that cortisone or ACTH contributed to the death and in the latter case the maintenance treatment was not

1. Demerol is the Winthrop Chemical Company's trade-name for their brand of ethyl methyl phenyl piperidine.

optimal. However, these two case do illustrate the fact that these drugs have their limitations.

Control of very severe asthma with ACTH or cortisone requires several days. Use of these drugs should not be postponed until the patient is near death. However, when treatment is given in time and continued over a period of seven to ten days, essentially complete temporary relief of asthma has been the rule, and no other drugs for symptomatic treatment were needed. Patients receiving this treatment felt well, ate well and slept well, in striking contrast to those whose asthma is controlled by frequent injections of epinephrine, aminophylline or Demerol.[1]

RHINITIS

Many of the patients treated for asthma also had severe vasomotor rhinitis, several with nasal polyps. In general, the rhinitis improved concomitantly with asthma. In some cases very large polyps decreased in size until at the end of 10 to 14 days treatment they were not visible. These results were temporary. Recurrence was extremely rapid. Within two weeks after cessation of treatment, the condition was essentially similar to the original state, several patients requiring operations for polyps. The drugs may have some use, for Grove (who has done polypectomies on some of these patients) states that in extensive polyposis a more satisfactory operation may be performed if the polyps have previously been shrunken by treatment with the hormones.

Since continuous treatment with cortisone or ACTH is not warranted in simple allergic rhinitis or polyposis, we were hopeful that local use of cortisone in the nose might be effective and have experimented at the Presbyterian Hospital clinic with the treatment of these conditions by cortisone drops and sprays. However, the results obtained so far have not been satisfactory.

HAY FEVER

A number of patients with hay fever have been treated with cortisone or ACTH for other diseases during their seasons. In general, there has been definite relief of the hay fever during and shortly after the treatment. Use of these drugs might well be warranted in a few patients with unusually severe hay fever.

ALLERGIC DERMATITIS

Eight young children with severe infantile eczema and seven adults with generalized atopic dermatitis have been treated with these hormones. In all there was marked relief of itching within a few days, followed by a cessation of oozing and a gradual healing of the lesions. In the acute cases, the texture of the skin became normal but the lichenification present in many of the adult patients with long standing dermatitis was not appreciably changed. Several of the patients developed pigmentation of the skin areas most severely involved which faded gradually after the cessation of treatment. Maintenance of therapy over a prolonged period has not been attempted and in all cases the eruption has recurred, after intervals of from two days to as long as three months. These drugs, as in asthma, are of value for the temporary relief of an unusually severe attack. This regime does not lessen the need for allergic management as a long term treatment.

Severe contact dermatitis has also responded favorably to ACTH and cortisone and their use is warranted in cases that do not clear promptly when contact with the specific allergen is eliminated. The prevention of recurrence depends upon discovery and avoidance of the cause.

Chronic urticaria of long duration has been treated and usually relieved within three or four days by either cortisone or ACTH, but as in other chronic diseases the relief is only temporary. Satisfactory results over a period of time depend upon discovery of the cause.

Severe acute urticaria due to penicillin sensitization was quickly relieved by ACTH and since this type of reaction is usually of short duration the tendency to recurrence is not great if treatment is continued for a week or so.

A number of other types of drug sensitization are also relieved by these drugs. Drug fever and dermatitis medicamentosa are inhibited during administration of ACTH or cortisone. Erythema nodosum, due either to drug sensitization or other causes, can usually be relieved by the hormones, although such

treatment is warranted only in the most severe cases.

SIDE EFFECTS

Relatively few patients treated with the dosage mentioned developed significant side effects. The most serious was toxic psychosis which appeared during ACTH treatment of two female patients, both of whom had previously shown evidence of emotional instability. In both instances, the mental condition returned to normal within two weeks after the drug was stopped. On the other hand, one patient with a history of previous mental disease requiring admission to a state hospital was treated for asthma with cortisone without any untoward symptoms. Most of the patients felt cheerful during treatment; some were even euphoric. While they were not released from the hospital in this state, therapy was not necessarily interrupted.

Moderate fluid retention, manifested by gains of four or five pounds during the first three or four days of treatment, was not unusual and was not a cause for alarm. Many of the patients were undernourished and a few dehydrated at the start. Only a few developed visible dependent edema and one, an arteriosclerotic woman, 73 years old, showed evidence of mild passive congestion of the lung bases. These patients lost their edema after omission of the drugs for one or two days and resumption with a lower dose. Mild fullness of the face was disregarded, fairly typical "moon-face" developed in less than 10 per cent of patients, chiefly those treated over long periods. This appearance was not considered sufficient reason to alter the regime, but was construed as a warning to watch carefully for other complications. Hirsutism was noted only in one small child treated for exzema. Changes in blood pressure and blood sugar were negligible.

ACTH contains foreign protein and severe allergic reactions to it have been reported. Such cases are apparently rare and have not been encountered in our series. Cortisone, on the other hand, is a non-protein synthetic compound and true allergy to it has not been detected.

PHARMACOLOGY

While the effects of cortisone and ACTH on allergic diseases have been clearly established, attempts to explain the mechanism of their action have been disappointing. The reaction of the skin to tests with histamine is not altered during treatment with ACTH or cortisone. Likewise, in patients showing positive reactions to skin tests with pollens or animal danders, these reactions are unchanged by hormone treatment. This suggests that it is not the antigen-antibody reaction or the reaction to liberated histamine which is inhibited. In patients whose sera contain skin-sensitizing antibodies for specific allergens, the amount of antibody present is not changed during treatment. With these and other available methods, no objective change in the chain of reaction between contact with the antigen and occurrence of symptoms can be demonstrated to account for the obvious clinical benefits.

SUMMARY

Both cortisone and ACTH produce marked relief in bronchial asthma, allergic rhinitis, atopic and contact dermatitis, urticaria and certain drug reactions. Patients receiving these drugs must be observed carefully, but serious side effects are not common, with the doses required. While the therapeutic effects far exceed those of other available medications these drugs are *not* curative and the benefits are only temporary. Their greatest value is in producing remission in patients with unusually severe and persistent symptoms and permitting recuperation from the physical and mental exhaustion attending the more severe forms of these diseases. Their use does not lessen the need for allergic study and management. In cases where allergic therapy is not effective, particularly in severe infective asthma, the hormones may be used over periods of many months with considerable relief.

60 East 58th Street

DIAGNOSIS OF INTESTINAL NEOPLASMS *

Linn J. Boyd, M.D., Walter L. Mersheimer, M.D., and Edward J. Nightingale, M.D., New York City

Our assignment is to discuss the clinical features of intestinal neoplasms apart from their surgical and roentgenologic aspects. This will be done on the basis of 1000 such cases from our files. For practical reasons we have eliminated a discussion of benign lesions, systemic neoplasms and secondary newgrowths. It should be noted, however, that pedunculated benign lesions, when submucous, provoke acute as well as recurrent ileus and intussusception[1] as readily as malignant ones. The systemic neoplasms like leukemia rarely run their course without intestinal bleeding. Fatal hemorrhage may occur from a myeloma implanted in the duodenum. Secondary invasion of the bowel, the extension of an ovarian carcinoma to the sigmoid for example, may simulate a primary intestinal newgrowth in all particulars. Although this presentation is based primarily upon our own statistics with supplementary reference to the observations of others, most statistical information has been placed in footnotes to avoid interrupting the continuity of reading.

The ease with which these cases could be assembled reflects the high incidence of these neoplasms. One intestinal neoplasm ought to be encountered in general practice for every two gastric carcinomas. Moreover, there is statistical evidence[2] that the incidence of these neoplasms is increasing.

Ordinarily the diagnosis of these tumors should be easy since the organs concerned are almost as accessible to examination as the breast or uterine cervix. In our series, 385 patients had a rectal or anal tumor. Of these, 93 per cent were detected by the simple expedient of digital examination with the patient in the proper position and bearing down against the examining finger; the other rectal tumors were discovered during proctoscopy.

To these may be added 328 patients with rectosigmoid or sigmoid carcinoma within the reach of a sigmoidoscope. Consequently 713 of 1000 diagnoses were made by simple or visual examination. The remaining 273 large bowel tumors were scattered throughout the colon; had they not been suggested by the history and physical examination, most if not all could have been discovered by barium enema. To discover the other 14 tumors of the small bowel additional diagnostic measures sometimes were necessary. See Table 1. However, the clinical picture of these small intestinal tumors leaves little doubt about the surgical nature of the situation. Accordingly, the diagnostic approach is relatively simple.

Table 1. The general location of 1000 intestinal tumors in the present series and of 27,152 noted in the literature.

	Small intestine	*Large intestine*	*Rectum and Anus*
Our series	14	467	519
Literature	563	10,596	14,993

In many cases, the early symptoms of colonic carcinoma are extremely vague and ill-defined or absent. In five of our patients the early diagnosis was accidental. Three of them were recovering from diabetic coma. Two had sustained automobile injuries when the discovery of blood in their stools led to further examination and the detection of a tumor. The discovery of one rectal polyp suggests a second one higher in the tract and frequently permits early diagnosis of malignancy.[3] The investigation of asymp-

* From the Departments of Medicine and Surgery, The New York Medical College, Flower and Fifth Avenue Hospitals. This paper was read, by invitation, at the Annual Meeting of The Medical Society of New Jersey at Atlantic City, May 14, 1951. Dr. Nightingale is a Trainee, National Cancer Institute.

1. About 150 instances of submucous intestinal lipoma have been reported in the literature. How many of these have been associated with intussusception is unknown to us but 32 of 38 in the small intestine and 19 of 39 in the colon on which we have notes have produced this accident.

2. Deaths from all causes in the United States increased during 1947-48 by 58,889 over 1937-38; but 86,472 more individuals died from cancer in the more recent period. Intestinal cancers accounted for 25,131 deaths in 1947-48 as compared to 23,238 in 1937-38. Deaths from gastric and intestinal neoplasm during 1947-48 were 52,182 and 25,131 respectively.

3. The distribution of intestinal polyps roughly corresponds to the distribution of intestinal carcinoma. The situation is entirely different in respect to intestinal diverticulosis. Diverticuli are present in approximately 1 of every 16 surgical specimens of resected colon carcinoma. Of 50 patients seen with diverticulosis, one may be expected to have a carcinoma as well. Despite the infrequent association difficult differential diagnostic problems are created when one or both lesions involve the sigmoid, a common site for cancer as well as for diverticuli. The association of colonic carcinoma and chronic nonspecific ulcerative colitis was not encountered in this series although the combination has been repeatedly observed by others and particularly when the colitis has persisted for 8 or 9 years.

tomatic individuals by barium enema in the course of routine examinations yields much higher dividends than the usual gastric series in similar patients.

Among 1500 consecutive gastric series in periodic health examinations, only one gastric neoplasm was discovered and a better history probably would have suggested it. The discovery of a silent colonic lesion by barium enema is a commonplace experience.

Apart from this large contingent of patients with relatively silent intestinal neoplasm (which will be discovered at an early stage only by properly conducted periodic examination) there is a larger group, perhaps constituting one-half of the patients with symptoms and signs which are misinterpreted and neglected for a long time by the patient. Blood in the stool is attributed to real or fancied, new or old hemorrhoids; constipation may appear or become worse but is considered normal by the patent; colicky, shifting, poorly defined abdominal pain and distension are regarded as "dyspepsia". Despite the discovery of many intestinal neoplasms immediately after an episode of frank hemorrhage or sharp pain, neglect, procrastination, or misunderstanding make the average interval between the appearance of symptoms and correct diagnosis about seven months for private patients and over ten months for clinical clientele. In individual cases more than 24 months may elapse. The public does not realize that only 4 per cent of patients with intestinal neoplasm have general symptoms early; in fact only 51 per cent have general symptoms such as "looking bad", weakness, and so forth when the lesion is advanced. While the prediagnostic period has been reduced from 17 months to nearer 8 months in the last twenty years, much remains to be accomplished by an educational program.

Several studies indicate that the physician is also not entirely innocent in connection with belated diagnosis. It is common knowledge that 20 to 28 per cent of patients with carcinoma of the rectum have been operated for hemorrhoids within the period of symptoms of carcinoma of the rectum. The appearance or aggravation of hemorrhoids in many patients with rectal neoplasm might be anticipated since the carcinoma invades or compresses the thin walled veins earlier than the arteries.[4] We have no accurate figures on this diagnostic error but the mistake has occurred with sufficient regularity to create the rule: no hemorrhoidectomy permitted without a complete rectal examination and sigmoidoscopy.

It is also repeatedly stated in the literature that about 17 per cent of patients with colonic carcinoma have been subjected to appendectomy within the period of existence of the carcinoma. Some of these cases are explained by rupture of a growth near the appendix or in the cecum. More of them become comprehensible when one recalls the frequency with which right lower quadrant pain is encountered in colonic cancer, irrespective of the site of the lesion. At all events, among 65 cecal carcinomas, three patients entered with draining sinuses from appendectomy incisions and two others had had appendectomy in recent weeks.

Part of these difficulties arise from erroneous concepts about intestinal neoplasms. Thus some consider narrow, pencil-like stools important. Since they were noted in only 12 of 1000 patients, they may be regarded as a rare, relatively late symptom; moreover they are much more common in a wide variety of non-neoplastic diseases of the rectum and anus. Their belated development is suggested by the fact that, on the average, six months is required for a rectal carcinoma to extend one-fourth the circumference. Surprisingly enough in four of the twelve positive cases the lesion was not even located in the rectum or anus. It has also been suggested that less time be devoted in intern training to depressing the tongue and more to proctoscopic examinations.

The average age of patients with intestinal neoplasms is between 55 and 58 years. This represents, let us say, the average of two patients with rectal cancer, one aged one year and another aged 105 years. In our series the peak of incidence was between 65 and 69 but vital statistics indicate a steady increase up to the age of 80. More males 70 to 79 years of age die from intestinal cancer than do males be-

4. The incidence of hemorrhoids as an early symptom of carcinoma of the rectum is variously estimated. Typical reports in the literature give the estimate as 7.3, 9.5, 10, 11, 15, 20, 25.9 per cent. It has been stated that the incidence may reach 65 per cent in all rectal carcinomas if all stages are included. The latter figure seems high to us.

tween 60 and 69 although there are 26,002 fewer males per 100,000 population living in the older group. The low average age with the advanced maximum incidence means that intestinal cancer is common in young individuals. Four of our patients were under 27 years of age; rectal carcinoma has been repeatedly observed in infants and is rather common after the century mark is passed. The old dictum that the malignancy of an intestinal cancer is inversely proportional to the age of the patient probably is not strictly true, but the idea has sufficient validity to emphasize the necessity for early detection in younger patients. See Table 2.

Table 2. The age incidence of 1000 patients with intestinal neoplasm and the age and sex distribution of American deaths from intestinal neoplasm (including peritoneal newgrowths) for 1947-1948.

Age	Number	Age	Number
20-29	4	60- 69	310
30-39	25	70- 79	274
40-49	99	80- 89	54
50-59	231	90-100	5

Age	Duodenum		Rectum and Anus		Intestine	
	Males	Females	Males	Females	Males	Females
0-9	0	0	2	2	40	9
10-19	0	0	9	2	58	25
20-29	10	5	66	67	169	143
30-39	13	7	258	457	515	633
40-49	34	26	780	900	1419	2023
50-59	61	45	2348	1763	3627	4301
60-69	131	83	3887	2339	6262	6933
70-79	102	89	3454	2506	6328	7370
80-89	65	44	1230	1101	2281	3483

The slight excess of males in our series (552 males to 448 females) was accidental since we found the sexes equally represented in 102,022 intestinal tumors (51,945 females to 50,177 males). Intestinal malignancy is a diagnostic possibility in both sexes at all ages.[5]

The intestine is one of the organs commonly involved when multiple neoplasms exist. Six of our patients also had a malignancy in some other organ (ovary 2; breast, face, tongue, lung, each 1). The carcinoma of the tongue had been removed 22 years earlier. The intestine itself may be the site of multiple neoplasms which develop simultaneously or after long intervals. The former event occurred four times in our series. One patient died from recurrent leiomyosarcoma of the small intestine after seven had been removed. She had also survived pneumonectomy for bronchogenic carcinoma eight years earlier. Another had multiple lymphosarcoma of the small intestine. One patient had two jejunal carcinomas of the same size. The last of this group had a cecal as well as sigmoid carcinoma and illustrates the rule that the discovery of one colonic carcinoma necessitates a search for the second. In our series there did not happen to be a patient with diffuse intestinal polyposis; all of these die from intestinal carcinoma if they live long enough. We did not observe the simultaneous occurrence of intestinal carcinoma and sarcoma of the bowel in the present series but we have noted it once in a great while.[6]

Before turning to the clinical pictures, one other elementary point should be recalled. A localized lesion like an intestinal tumor has a limited capacity to express itself in symptoms. The proliferative tumors with papillomatous, stubby growths may bleed, ulcerate, perforate or become incarcerated. Cecal tumors are classical examples. Invasive tumors particularly at the ileocecal valve, the flexures, and the terminal colon usually produce an annular, napkin-ring constriction with obstruction. The symptomatology of an intestinal neoplasm depends upon how strongly one or both of these phenomena are accented.

PAIN

The first symptom requiring description is pain. It may be the earliest symptom noted and more frequently leads to examination than does bleeding.

Ordinarily the distress is vague and frequently amounts to no more than a feeling of fullness or distension. With mass peristalsis, pain immediately follows eating. More often, three to four hours elapse between the meal and the distress. The cramp-like, colicky pain may be epigastric, right sided or more com-

5. Endometrioma occurs exclusively and adenomyoma of the rectum almost exclusively (9 to 1) in females. Metastatic carcinoids of the appendix seem to he slightly more common in that sex. Duodenal (416:299) and jejunal carcinoma, henign newgrowths exclusive of polyps (62:38) and melanoepithelioma of the rectum (55:31) seem more common in the male. Colon carcinoma is said to he more common in females (37,104:31,927) while the reverse situation is described for rectal carcinoma (17,784:14,452). The differences might easily vanish if rectosigmoid carcinoma could he accurately classified from an anatomic standpoint.

6. Some typical figures in the literature in respect to the incidence of multiple neoplasm of the howel are as follows: 0.9, 1.0, 1.4, 1.7, 1.84 and 4 per cent.

monly in the right lower quadrant. Usually it shifts from place to place. Often it is relieved by passing flatus, by defecation or an enema. Although right lower quadrant pain characterizes more than one-half of cecal carcinomas, it is noted in over 80 per cent of tumors of the large bowel, irrespective of location; in fact we have noted it with gastric fundal carcinomas which have extended to the splenic flexure. If, as often, the cecum is distended at the time of the distress, the area may be tender on palpation. In other areas, localized pain with tenderness suggests ulceration of the tumor with superimposed inflammation and infection; under these circumstances the site of the pain may have some localizing value. Crampy, right lower quadrant pain is so common in colonic carcinoma that a type which simulates chronic appendicitis or cholecystitis has been created. When the fullness dominates the picture, the "dyspeptic" type of colon cancer better describes the situation.

Entirely distinct from this pain is pain on defecation observed in some patients with rectal carcinoma. Pain on defecation may also occur, for reasons not entirely clear, when the lesion is located higher in the tract so that a negative digital examination is not conclusive. Boring, aching, gnawing, constant pain, with and without relation to defecation may be noted when endo- or perineural involvement occurs.

Backache was a prominent symptom in 20 of our cases; 12 times the lesion was in the rectum, 4 times elsewhere in the left colon, 3 times in the ascending colon and once in the cecum. Metastases in the lower spine demonstrable by x-ray are infrequent.

When subileus changes to ileus, colicky pain becomes intensified. This happens in a classical way in the terminal colon with its smaller diameter, solid feces, and annular lesions. But, it also occurs in the wide cecum with its liquid contents and papillomatous growths. Over 31 per cent of our patients with lesions between the splenic flexure and rectosigmoid junction entered the hospital with definite evidence of partial obstruction. Complete obstruction was most frequent in lesions of the sigmoid and rectosigmoid area and became less frequent as one ascended the bowel.

Even without complete obstruction at some other site, tension gangrene and rupture of the thin cecum may occur. We encountered this event only once in this series and we are aware of 29 other cases in which the bowel ruptured although the tumor was located elsewhere in the tract; among these the cecum was perforated 13 times and the transverse colon in 8 although the lesion usually was in the sigmoid.

With perforation of the bowel a new syndrome develops. This catastrophe initiated the syndrome three times in carcinoma of the appendix, twice in carcinoma of the cecum. Four patients with carcinoma of the pelvic colon presented themselves with ischio-rectal abscess and pain.

With benign as well as malignant tumors of the small intestine, the ileocecal valve or, large bowel, intussusception may occur. About one-third of intussusceptions due to tumor occur with lesions of the small bowel; this situation is rather surprising since small intestinal tumors are not common (Table 3). About one-half of the instances of large intestine intussusception due to tumor are found in the cecum. In small as well as large intestine intussusception, the situation may develop acutely and create a surgical emergency; we have the impression that chronic, recurrent intussusception with periods of remission are somewhat more common although precise figures are not available.

Table 3. The distribution of 1000 malignant tumors of the large bowel (including anus) and 17,539 of large intestine from literature.

	Our series	*Noted in literature*
Cecum	65	2433
Ascending colon	35	1174
Hepatic flexure	23	701
Transverse colon	56	1328
Splenic flexure	41	856
Descending colon	44	2768
Sigmoid colon	196	8279
Recto-sigmoid junction	(136)	*
Rectum	540	**

* Thus, of 100 recto-sigmoid lesions 45 could not be more accurately defined; 33 had more extension toward the rectum and 22, more toward the sigmoid of 196 lesions.

** If this analysis were extended the distribution would work out near the following: on the basis of 700 tumors in this area: sigmoid 112, recto-sigmoid 261, rectum 406, anal 21. Of the rectal carcinomas about 50 per cent are at the ampulla, 20 and 15 per cent in the upper and lower rectum respectively; less than 1.5 per cent are found in the anal canal and at the anus, the former exceeding the latter by 2:1.

The actual percentual distribution of carcinoma in eight series was as follows:

Small bowel	2.5	4.3	7.2	7.32	5.1	7.8	11.8	12.3
Large intestine	26.5	18.8	42.5	34.1	42.4	54.4	44.1	40.4
Rectum	71.5	77.9	50.8	42.4	52.5	37.8	44.1	47.4

BLEEDING

Severe exsanguinating hemorrhage associated with shock is rather rare. It may occur in connection with the spontaneous extrusion of a submucous lipoma, with bleeding of a myeloma or lymphosarcoma, a hemiangioma and a few other lesions. The obliterating arteritis which accompanies many other intestinal neoplasms precludes such hemorrhage in most patients.

The incidence of macroscopic bleeding is difficult to ascertain since the patient ordinarily recognizes fresh blood only when smeared on the stool, toilet paper or in the bowl. Often tarry stools are not considered the result of blood; moreover, black stools may depend upon the administration of iron.

Among intelligent patients, a history of bleeding can be obtained in nearly 90 per cent of patients with rectal carcinoma; but in less than one-half of them is "fresh blood in the stool" the initial complaint. Special inquiry should be conducted since the patient may attribute bleeding to hemorrhoids and neglect to mention it. The presence of fresh blood, detected by the patient, decreases in frequency as one ascends the bowel so that the percentage of positive reports in cecal lesions is nearer 9 per cent. If, however, tarry or black stools are included, the incidence rises to more than 21 per cent with lesions proximal to the sigmoid flexure.

The situation is entirely different in respect to occult bleeding.

Among 680 patients who had intestinal malignancy and a *single* test for occult blood, a positive result was obtained in 289 and a negative one in 381. Among 200 patients with *multiple* tests, 85 were consistently positive, 48 were consistently negative, and in 67 the number of positive and negative tests were about equal. Consequently, a negative test is meaningless. A single positive test requires an explanation which need not be adequate when a hemorrhoid or rectal polyp is discovered. Correctly employed, however, chemical tests for occult blood in the stool are valuable. They offer the simplest and cheapest method at our disposal.

ANEMIA

The degree of anemia which develops depends, of course, upon the amount of blood lost and the patient's capacity for regeneration; the speed with which blood loss occurs and the time at which the patient is examined are also factors. Although our studies in respect to anemia are inadequate, our incomplete figures displayed in table 4, may not be without interest.

Table 4. Blood counts on patients with intestinal neoplasm.

R.B.C. millions	Rect.	Sigm.	Desc. colon	Splenic flex.	Trans. colon	Hep. flex.	Asc. colon	cecum
1.0-1.9	3	2	0	0	0	0	2	3
2.0-2.9	40	13	2	4	4	2	2	2
3.0-3.9	152	53	13	15	16	6	18	23
4.0-4.9	177	76	17	15	24	6	10	17
5.0-5.9	43	21	3	6	7	1	3	8

Of 807 intestinal neoplasms only ten patients had a red blood cell count below 2,000,000. In five, the lesion was in the right colon and in five in the lower left bowel. Counts below 3,000,000 were observed much more often in left-sided than in right-sided lesions.

Of 92 patients with a count over 4,000,000, in 12 the lesion was in the right colon.

In the literature a great deal is said about the profound anemia which accompanies right colon neoplasms. Reference is made to the large diameter of cecal carcinomas as compared to those elsewhere in the colon, to the absorptive function of the cecum as compared to the transport function of the left colon, the slow, silent evolution of cecal tumors and the early appearance of symptoms in left-sided lesions. Reference is also made to the fact, the right-colon lesions may closely simulate pernicious anemia.

There is little doubt that profound anemia may occur with intestinal neoplasms in general and with cecal carcinoma in particular. We

have observed colonic carcinoma and a hemoglobin of 32. But such anemias are uncommon. In patients with severe anemia, colon malignancy deserves consideration; to presume, however, that severe anemia is a regular finding, even in cecal carcinoma may easily lead to delay. In 502 other cases of colonic carcinoma, the average blood count was 4.2 millions; among the cecal carcinomas in that series the count averaged 3.8 millions. In 89 others the blood count was normal in 44, slightly reduced in 30, and a grave anemia was noted in 15. In the last category 10 of the lesions were right sided. In another series of 47 cases, the red blood cell count averaged 4 million.

It is our opinion that the comparison to pernicious anemia is rarely applicable. Reference is intended to the pallor and emaciation of the patient and neither of these symptoms characterize pernicious anemia. Moreover, the anemia of colonic carcinoma usually is hypochromic. Even with extensive hepatic metastases, the situation does not change greatly. There is evidence to indicate that the liver of patients with colonic carcinoma contains considerable intrinsic principle, in contrast to the situation in gastric carcinoma. To be sure, a macrocytic anemia is occasionally encountered in the rare patient with extensive bone metastasis from rectal carcinoma and even more rarely with widespread hepatic lesions. We feel, however, that there has been, perhaps, overemphasis upon the frequency of severe anemia in connection with these neoplasms. It seems clear that if severe anemia is considered a common symptom of colonic malignancy, early diagnosis usually will be defeated.

We obtain little help from determinations of the sedimentation rate. Marked increases are rather common but there appears to be little difference between resectable and non-resectable cases. Moderate increases of rate and normal figures were obtained in both groups. The same situation holds for estimations of the serum proteins. Normal readings are somewhat less frequent than moderate reductions; possibly disturbances are more common in left colon lesions.

CHANGES IN BOWEL HABITS

The next group of disturbances to which allusion must be made are the alterations of bowel habits. Constipation may occur with right colon lesions. Ordinarily it is mild; frequently it is not mentioned by the patient, when an already existing constipation is merely accentuated. With tumors beyond the midportion of the transverse colon, constipation becomes increasingly common. In no section of the bowel does constipation equal bleeding in the regularity of its occurrence but the nearest approximation was found in the sigmoid; there, bleeding was the initial symptom in 65 patients, constipation in 49. Tarry stools are occasionally mentioned in connection with cecal carcinoma. As stated earlier, constipation may progress until obstruction is complete.

Diarrhea is much less common than constipation in tumors of all parts of the bowel (Table 5). The discrepancy is particularly marked in lesions of the transverse colon. In rectal (as well as in cecal) carcinoma there is little difference in the incidence of one or the other symptom. With ulcerated infected cecal carcinoma, diarrhea may be persistent, even when it is not severe. When diarrhea occurs in connection with constrictive lesions, looseness of the stool tends to occur between bouts of constipation. Lesions low in the sigmoid frequently are associated with spurious diarrhea. Under these circumstances the patient has a continuous urge to defecate but passes only mucus and blood without feces. Often spurious diarrhea is antedated by increased frequency of defecation without actual diarrhea. Recto-sigmoid carcinoma may create a sensation of a lump to be evacuated, the movement often is explosive and more wind than feces is passed. It is difficult to overemphasize the importance of a change in bowel habits in the symptomatology of colon malignancy.

SYSTEMIC SYMPTOMS

It is unusual for general symptoms to inaugurate the symptomatic phase of colonic malignancy. Even when they dominate the situation, a careful history usually reveals a preliminary period of colicky abdominal pain, borborygmi, dyspepsia, distension and the like. Increasing weakness and fatigability and un-

Table 5. The important clinical symptoms and signs mentioned by patients as early or initial; actual incidence is not indicated for records were often incomplete. A few signs noted on intern records have been added at the botton.

Sympton	Rectum	Sigmoid	Descend. colon	Splenic flexure	Trans. colon	Hepatic flexure	Ascend. colon	Cecum
Bleeding	289	65	8	3	30	0	2	7
Pain	158	86	22	24	20	14	22	44
Constipation	126	49	14	9	24	5	5	9
Diarrhea	122	27	4	4	4	3	7	10
Wt. loss	70	12	4	8	13	4	6	8
Anorexia	32	11	3	3	7	1	1	5
Weakness	32	8	6	8	13	2	4	9
Vomiting	25	9	6	5	7	0	3	5
Dark stool	23	23	3	2	3	1	4	12
Mass	16	0	2	0	0	0	0	1
Fullness	14	10	6	3	8	0	4	8
Backache	12	2	2	0	2	0	3	1
Mucus	10	0	0	0	0	0	0	0
Nausea	10	2	2	2	3	0	3	1
Distention	9	8	5	1	7	2	4	4
Urin. Incont.	7	0	0	0	0	0	0	0
Urinary retention	5	0	0	0	0	0	0	0
Hematuria	5	1	0	0	0	0	0	0
Leg pain	5	1	1	0	0	0	0	0
Chills	4	1	0	0	0	0	0	0
Unexpl. fever	3	1	1	0	0	0	0	0
Jaundice	3	0	0	0	0	0	0	0
Mass	318	54	8	11	24	11	18	37
No mass	37	32	4	12	14	8	5	8
Obstruction	12	19	7	7	6	0	3	0
Tenderness	9	10	8	4	4	3	2	6
Ascites	5	2	2	1	3	0	1	1
Cachexia	8	0	0	0	1	0	1	0
Perforation	3	4	2	0	0	0	0	5

explained anorexia are the more prominent general symptoms. Often there is little weight loss for a long time; after it starts, loss of weight is progressive and often has become extreme by the time of hospitalization. Then, other general symptoms are also marked.

Furthermore it should be emphasized, that the group in which colonic carcinoma is most common is also the age group subject to other diseases which may, for a long time, mask the clinical picture. Consequently, one may be led astray by initial complaints of exertional dyspnea, swelling of the ankles and the like. The cardiovascular disease which happens to be present, obscures the early symptoms of the malignancy.

In the absence of acute emergencies, nausea and vomiting are late symptoms; usually when they occur the diagnosis is obvious. Fecal vomiting is uncommon even with complete obstruction. We also noted it in colo-gastric fistula, which is rather rare. Gastro-colic fistula from various causes including gastric carcinoma is much more common than colo-gastric fistula.

Chills and fever are usually associated with some major local change in the lesion. In a few patients, however, prolonged, unexplained, low grade temperature is the sole manifestation for several weeks.

LOCAL MASSES

Among the most interesting findings is the discovery of a mass. The palpability or visibility of masses in the rectosigmoid and rectal areas was mentioned earlier. It may be of interest to note that in 16 of our patients with rectal carcinoma, the mass was discovered by the patient, twice as a lump projecting into the vagina. Of 76 rectosigmoid tumors on which we have a particular note, a mass could be palpated in 54 at the time of our first examination. Left sided abdominal masses often indicate widespread invasion. Generally speaking, masses were detected more regularly in connection with tumors of the cecum and ascend-

ing colon; there a tumor was found in 69 and missed in 22. Our poorest scores were obtained with tumors at the hepatic and splenic flexures where about one-half of the masses were missed. The situation was better in respect to the transverse colon where the tumor was felt in nearly two-thirds of the patients.

The above description sounds rather deplorable in respect to the failure to detect these tumors until they become palpable through the abdominal wall, but the situation is not quite as hopeless as it sounds. After all, the size of the mass, with some reservations, is not directly related to resectability nor curability. In fact rather a large mass may represent mainly a fecal impaction, or a small tumor with a large area of inflammation surrounding it. Not rarely, remote metastases are associated with small tumors. We have discarded thinking of resection in terms of the size of the mass. With proper reservations, all patients deserve exploration. As a rule, a hepatic death from metastatic carcinoma is attended by much less distress than a "colon" death. With malice aforethought, we have failed to mention one other mass discovered with disturbing regularity at the original examination: a palpable liver containing metastases.

METASTASES

Detailed data on the location of metastatic lesions are not appropriate in a purely clinical presentation of diagnostic features. The organs commonly affected are the liver and lungs. Hepatic invasion at necropsy may be placed at between 75 and 80 per cent but ordinarily there is little early clinical evidence of hepatic involvement apart from liver enlargement. Not all hepatic enlargement in patients with colon neoplasms is due to metastatic invasion. Often it depends upon unrelated cardiac failure. Pulmonary invasion occurs in 20 to 25 per cent but is rarely demonstrable by x-ray. Occasionally a carcinomatous lymphangitis is seen, like that observed in gastric carcinoma but this is not common except late in the disease. Pulmonary metastases often become manifest two to three years after apparently successful resection of the bowel. Invasion of the peritoneum, omentum, and mesentery is not uncommon and explains ascites in many cases. Among the bones, the sacrum, coccyx, pelvis and vertebra are involved somewhat in that order. Demonstrable rib metastases are uncommon. Presumably the incidence of bone metastases lies in the neighborhood of 8 per cent and most examples are provided by rectal lesions. Rarely do the flat bones like the scapula show metastases. Once in a while unusual bone metastasis is the sole evidence of malignancy. This has happened in a case of a bleeding nodule in the palate. This reference to bony metastasis seems required by the existence of an "orthopedic type of colon cancer". As stressed elsewhere we occasionally see patients in whom leg pain or backache dominates the clinical picture for a long time before the cause is discovered. Generally speaking, extensive x-rays of the skeletal system for metastases do not prove economically advisable. Positive results are infrequent. Since younger patients often show metastases, it may be considered in this group when orthopedic symptoms exist.

More important is the creation of a "perivesical group" of patients in which the lesion has extended to or around the bladder. Then early symptoms are confined to the lower urinary tract; they have difficulty or frequency of urination, inability to urinate, and hematuria. The initial symptom in one of our patients was a urethral discharge. Late in rectal carcinoma, urinary incontinence is not unusual.

Repeatedly we have discovered a sentinel gland above the clavicle in patients with colon carcinoma so that in the absence of gastric malignancy the discovery of a Virchow node should suggest investigation of the colon. Perhaps invasion of these glands depends upon dissemination through the thoracic duct which is, after all, not uncommon in colon malignancy. At all events we have come to believe that neural involvement as seen in the microscopic slides suggests local recurrence. Venous invasion in the slide implies the possibility of hepatic involvement. Cervical gland invasion may occur through the great lymph channels.

Little justice has been done in this brief discussion to tumors of the small intestine.

Since they are rare they are considered in a footnote.[7]

Limitations of time prevent discussion of many other practical points but, perhaps sufficient has been said to rekindle an interest in the subject. After all, few fields of oncology are as fruitful from the standpoint of curative surgery as neoplasms of the intestinal tract.

SUMMARY AND CONCLUSION

1. A brief analysis has been made of a few clinical features of colon carcinoma on the basis of a thousand personal cases and incidental allusions to observations of others.

2. The analysis suggests that too much emphasis has been placed upon symptomatology which refers to incurability rather than to early diagnosis. In view of the relative silence of many intestinal neoplasms, the possibility of early diagnosis often depends upon detection among the apparently well, by correctly performed periodic examinations. Such examinations should include digital examination of the rectum; proctoscopy, which is no more difficult than depression of the tongue; sigmoidoscopy which should be a definite part of any diagnostic survey; a barium enema which may be more informative in asymptomatic individuals than a gastric series.

3. Early diagnosis likewise depends upon the proper evaluation of symptoms and signs. To some extent this may involve some reorientation in respect to what symptoms and signs are indicative of intestinal neoplasm. The performance of a few simple examinations will reveal more than 95 per cent of intestinal neoplasms at a relatively early period.

4. In few fields of oncology does surgery offer better opportunity for cure than in the intestine and rectum. It is incumbent upon us, as general practitioners and internists to afford them the opportunity they deserve.

7. No instance of unequivocal malignant degeneration of a duodenal ulcer was encountered in this series nor in the experience of the senior author. Occasionally supra-ampullary tumors are encountered which do not represent extensions of gastric neoplasms; usually they may be assigned to the malignant degeneration of ectopic gastric or pancreatic tissue when they are actually intrinsic. Peri-ampullary tumors appear to us as extensions of ampulla of Vater carcinoma and, like the preceding group may be considered, for the most part, as extending to invade the intestine secondarily; they were excluded in this study. Infra-ampullary duodenal carcinoma is rare. The writers have had three examples which happened to fall outside the thousand cases now reported. Twice the pre-operative diagnosis of annular pancreas was made and found wrong at operation; in the third case a diagnosis of pancreatic carcinoma was made pre-operatively and likewise proved mistaken. We have repeatedly seen lymphosarcoma of the duodenum, sometimes constrictive, sometimes pedunculated: the diagnosis of high intestinal obstruction of unknown origin usually was made unless lymphosarcoma coexisted elsewhere.

We have noted in the literature carcinoma of the duodenum 260 times; of the jejunum 211 times and of the ileum 161 times. The distribution in the duodenum seems to have been about 34:45:21 for the first, second, and third sections of this portion of the bowel. We are inclined to believe that practically all of the first and second cases actually are extension of gastric or ampullary carcinoma. Generally speaking, pain, ileus, hemorrhage, vomiting bring these cases to the physician relatively early (average 5.4 months) but the outlook is poor even when there is no obvious invasion of regional glands. The ileum is the site of benign tumors three times as often as the jejunum.

A relatively common tumor of the small intestine, excluded from consideration in this paper is metastatic carcinoid. Over 250 carcinoids of the bowel have been reported. Of these about 85 per cent are located in the appendix with the remainder scattered throughout the rectum and colon. In about 20 per cent metastases are encountered at operation; the metastasis may be large (4.5 cm.) and he mistaken for a primary tumor.

Next to carcinoma, lymphosarcoma is the most common malignant tumor of the small bowel. In the case of this tumor, the small bowel is preferred 2:1 over the large intestine and most of them are encountered in the ileocecal region; this happens in 65 of 175 reported intestinal lymphosarcoma. Of 30 sarcomas of the rectum only 2 were lymphosarcoma.

Among the other sarcomas the round cell variety, neurinoma, hemiangioma, lipoma, spindle cell, myoma, myo- and myxosarcoma, fibroma, leiomyosarcoma, and polymorphous cell tumors deserve special mention. Endothelioma, cholesteatoma, teratoma and the like are rarities. Nearly 30 per cent of intestinal sarcomas are seen before 40 years of age when neoplastic disease otherwise is infrequent.

The rarity of small intestinal neoplasms deserves a concluding comment. Among 45 compilations and original reports the incidence was as follows: 0.1-1.0 (18 reports); 1.1-4.3 per cent (12 reports); 5-13 per cent (15 reports). The higher statements usually include surgical specimens, as well as necropsy data; sometimes more careful examination is implied.

Flower and Fifth Avenue Hospitals

IMMUNIZATION INFORMATION FOR INTERNATIONAL TRAVEL

The Public Health Service is now making available to physicians a pamphlet dealing with the immunizations required by every country of the world including related data on inoculations and epidemiology. This booklet may be purchased by sending 20c to the Superintendent of Documents, Government Printing Office, Washington 25, D.C. The official title is *Immunization Information* for International Travel.

STATE ACTIVITIES

STATE SCHOOL HEALTH COUNCIL

Four years ago, the Woman's Auxiliary to The Medical Society of New Jersey was requested to implement the four-point program for improvement of school health services which had been jointly formulated by the State Department of Education and The Medical Society of New Jersey. The Board of Trustees of The Medical Society approved Auxiliary participation in this project.

No blueprint for action was furnished by the co-sponsors. After some months of study, it was decided the plan would best be implemented by formation of county councils for the improvement of school health services. These councils are composed of county-level representatives of all organizations responsible for, or interested in, improved school health procedures. A representative of the general public is included.

Under the able leadership of Mrs. Lodovico Mancusi-Ungaro, who was then State Auxiliary president, the formation of county councils began. All credit is due the public relations chairmen and others of the county Auxiliary groups who, following a plan set up by the state committee, successfully launched this first state-wide Auxiliary program.

This work was continued during the administrations of Mrs. Robert B. Walker, Mrs. Norman Nathanson and Mrs. R. John Cottone and is progressing under the present administration. The program was stimulated and brought forcibly to the attention of state organizations through the June 1950 Conference on School Health Services in New Jersey presented by the public relations committee of the State Auxiliary, headed by Mrs. Paul E. Rauschenbach.

At this time of writing, seventeen county councils have been formed. Only one of the Auxiliary-organized counties has not yet started this project. The Auxiliary is not organized in Morris, Cumberland and Sussex counties and these areas present a special problem. In the past a committee of members asked the medical societies in these counties to approve a plan whereby the committee would go into each area and instruct a group of physicians' wives, or other persons selected by the Society, in the formation of a Council. Approval of this is still pending.

Four, and possibly five of the county councils are not conducting active programs. These councils should be reactivated.

The work of the county councils is coordinated by the State Council for Improvement of School Health Services, headed by Dr. Grace M. Kahrs. The State Council is composed of state-level representatives of the same organizations represented on the county councils. It elects its own officers, with the exception of the chairman, is financed by the State Medical Society and meets every two months, alternating between Newark and Trenton. In accordance with the constitution, the chairman is appointed yearly by the Medical Society, must be a physician and a member of the School Health Advisory Committee of the Society.

I list a few of the outstanding individuals who are members of the State Council: Dr. Geoffrey W. Esty, Director of the Division of Constructive Health, New Jersey State Department of Health; Dr. Lloyd Yepsen of the New Jersey State Department of Institutions and Agencies; Dr. Wilson G. Guthrie and Miss Lula P. Dilworth of the New Jersey State Department of Education; Mr. Charles M. Phillips, President of the New Jersey Federated Boards of Education and Mrs. Isaac Dilkes, Health Chairman of the State P.T.A. Each organization representative has an alternate and these are appointed yearly by their groups. County Council chairmen are also members of the parent Council.

Each organization represented on the State Council undertakes to advance a specific portion of the four-point program most closely related to the function of the organization. An example of this is the New Jersey Tuberculosis League's present activity of implementing point No. 4 "Yearly chest x-ray of school teachers and all adult school personnel".

This is essentially a "grass roots" project and one which must be stimulated and carried out at the local level. The Woman's Auxiliary may be very proud of its part in the formation of county councils—a program which started way back when local councils were unusual to say the least and the philosophy of getting all interested parties to act together for the common good was just gathering popularity. There are now many groups, local, county and state which are interested in the formation of health

councils. The component Auxiliary groups seem to have accomplished more in this field than any other organization.

I quote from the minutes of the State Council meeting held November 15, 1950, "Mr. Fellers, the State Council's Chairman of Program Services, reported his committee agreed that advantage should be taken by existing School Health Councils to promote the establishment of general community health councils to work closely with civilian defense groups".

It is to be desired that the members of the Medical Society and the Auxiliary continue their interest in this program for improvement of school health services; continue to lend support to the county councils and aid in reactivating those few councils which seem to have fallen by the wayside. The compensation will be adequate, healthier, happier New Jersey children.

Mrs. Asher Yaguda, Secretary

SUPPLEMENTARY LIST No. 5
TO THE OFFICIAL LIST OF MEMBERS AS OF MARCH 1, 1951

SEPTEMBER 20, 1951

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Bacsik, Edward J., 334 Hamilton av., Trenton (11)
Burroughs, Charles W.,688 Stuyves't av.,Trent'n(11)
Di Gioia, John, 287 Pacific av., Jersey City (9)
Fine, Sydney G., 868 Stuyvesant av., Trenton (11)
Finnegan, William R., R.F.D. No. 5, Eastside av., New Brunswick (12)
Hoffman, David B., 31 Lincoln Pk., Newark (7)
Hutchinson, Wm. M., 1457 Nott'gh'm W., Tr'nt'n(11)
Lapin, Mathew R., 628 W. State st., Trenton (11)
Levenson, Robert A., 7th & Grape sts., Vineland (6)
Lewis, Sydney B., 194 W. State st., Trenton (11)
Little, W. R., 493 W. State st., Trenton (11)
Moog, Charles R., 208 Walton st., Ridgewood (16)
Muster, William J., 525 E.Ridgew'd av.,Ridgew'd(16)
Pasquariello, Peter J., 351 Totowa av., Paterson (16)
Pepe, Salvatore A., Sheppards Field, Wichita, T.(11)
Purcell, Ernest F.,Jr.,2630 Nott'h'mW.,Merc'rc'le(11)
Robinson, Irving W., 835 W. State st., Trenton (11)
Rogers, Fred B., U.S. Naval Hosp., Bethesda,Md.(11)
Saxe, Theodore L., 2777 Boulevard, Jersey City (9)
Schnur, Bernard, 731 W. State st., Trenton (11)
Sena, Marie A., 20 Marshall st., Irvington (7)
Sherman, Morris, 82 W. Commerce st., Bridgeton (6)
Stockman, John C., 34 Elm st., Morristown (14)

OBITUARIES

DR. ALLAN S. KIRKWOOD

Dr. Allan S. Kirkwood of Montclair, died on July 28, 1951, at the age of 80.

Dr. Kirkwood received his medical education at New York University and Bellevue Hospital Medical College, where he was granted his degree in 1913. Following his internship at Newark City Hospital he went to Newton Center, Mass., to practice. While there he was a member of the staff of Peter Bent Brigham Hospital for three years. In 1919 he moved to Montclair, after serving in World War I. He was senior attending physician in neurology at Mountainside Hospital and a member of the staff for 30 years.

DR. RAPHAEL POMERANZ

Raphael Pomeranz was one of the scholars of radiology—a physician who contributed very definitely to the raising of roentgenology from a form of photography to a beautiful combination of art, craft and science. He was never content with the taking and interpreting of films. He was responsible for a substantial amount of solid research in radiology. His sudden death on August 20, 1951, represents, therefore, a very real loss to the New Jersey profession.

Raphael Pomeranz was born in Europe in 1896, and came to this state and country in 1923. He rose very rapidly in his specialty, serving as roentgenologist to four or five hospitals in northern New Jersey. He was a board diplomate in both radiologic therapy and x-ray diagnosis. His exhibits at the Annual Meetings of The Medical Society of New Jersey were always popular, new, and instructive, and several of them won awards and prizes. He was on active military duty during most of World War II, serving variously as chief of radiology at several army hospitals and as an instructor in the advanced course given at Walter Reed. Only last year he concluded his term as president of the Radiological Society of New Jersey.

DR. WILLIAM E. POTTINGER

Dr. William E. Pottinger, Chester, an x-ray specialist in All Souls Hospital, Morristown, for the last 20 years, died on August 19, 1951, after a long illness.

Dr. Pottinger was born in Buffalo, N. Y., in 1902. He was a graduate of the University of Pennsylvania and interned at Camden General Hospital. He had been an x-ray specialist at Orange Memorial Hospital and Overbrook in Verona.

NEW JERSEY STATE DEPARTMENT OF HEALTH
PUBLIC HEALTH NEWS FOR THE PHYSICIAN

MALARIA IN KOREA VETERANS

Physicians in New Jersey are urged to suspect *vivax* malaria in patients presenting suggestive signs and symptoms, and who have been in Korea after September 1, 1950. Symptoms may have been delayed because of a prolonged incubation or the effects of suppressive medication.

Definitive diagnosis of malaria should be based on the demonstration of the parasites in blood films. The State Department of Health Laboratory in Trenton will accept controversial or uncertain slides, preferably both *thick* and thin unstained blood films. Malarial infections having their actual origin in New Jersey are exceedingly rare. Slides which confirm such cases should be sent promptly to the State Department of Health Laboratory at Trenton.

Treatment with modern antimalarials now available (chloroquine, pentaquine, chlorguanide, et cetera) will alleviate symptoms promptly. Some patients receiving complete courses of these drugs will remain free from malaria; others may relapse after weeks or months. Patients should be told of this possibility and advised to seek medical treatment if symptoms recur. The likelihood of clinical reactivation becomes less with the passage of time. Relapses are rare after the second or third attack.

To prevent the spread of malaria from these individuals, cases should be reported to local health authorities promptly so that the necessary preventive measure can be taken if the local malaria vector, *Anopheles quadrimaculatus,* is found to be prevalent in the area.

If competent diagnosis, prompt reporting, adequate treatment and preventive measures are achieved, it is believed that the present freedom of New Jersey from endemic malaria will be maintained.

AVOID "FASTING" SPECIMENS IN DIABETES TESTING

It is the specimen taken *after* the heavy meal that picks up incipient and early cases of diabetes—not the "fasting" specimen.

This reminder is stimulated by questionnaires returned by physicians in a follow-up of tests done at the State Fair in 1950. Several physicians apparently ruled out diabetes on the basis of a negative "fasting" specimen of blood or urine.

To detect diabetes at the earliest possible moment, test when the insulin-producing mechanism is carrying the heaviest load of the day, according to the Division of Laboratories of the State Department of Health. During the night, the pancreas recovers and brings the blood sugar down to normal in most cases of early diabetes.

The Division recommends, as a practical method of finding early diabetes, the testing of a urine specimen collected about two hours after the patient has eaten his big meal of the day. The bladder should have been empty when the meal was eaten.

DR. CASSELMAN RETIRES FROM STATE HEALTH DEPARTMENT

Athur J. Casselman, M.D., Dr. P.H., retired from the New Jersey State Department of Health on August 15 after 32 years of service. Since January 1, 1949, he had been Director of the Division of Laboratories. He was Chief of the Bureau of Venereal Disease Control from 1919 to 1949.

Medical-Surgical Plan of New Jersey

"New Jersey's Blue Shield Plan"

Medical-Surgical Plan is now paying claims to physicians for medical services covered by its Subscription Contract at the rate of nearly $8,000,000 per year.

The Plan still receives a number of claims for services that are ineligible for Plan benefit. In each such case, the Plan is required to process the claim and to send letters explaining the declination to the doctor and his patient. This adds substantially to the Plan's operating expense, diminishing by just so much the funds that may be devoted to payment of eligible claims and to expansion of services.

If physicians can familiarize themselves with the provisions of the Contract defining eligible and ineligible services, they will be better able to cooperate with us by knowing what services should be reported to the Plan for benefit, and what services should be billed directly to a subscriber.

Accordingly, we offer you the following "quick picture" of the scope of services covered by the Medical-Surgical Plan Contract:

In general, Medical-Surgical Plan covers medical, surgical, and obstetrical services rendered in hospital. The only services rendered outside of hospital and eligible for benefit are:

(1) Emergency surgical services, occasioned by an accidental injury, rendered within 48 hours after the accident, in accordance with the Schedule of Payments, but benefit not to exceed $25.

(2) Surgical services for removal of tonsils and/or adenoids.

(3) Pre-natal and post-natal service and obstetrical service in eligible maternity cases, provided delivery occurs after seven or more months of pregnancy.

Surgical (not medical) services rendered in the O.P.D. of a hospital, without admission of the patient as a bed patient, to be eligible for Plan benefit, must be of an emergency nature.

For maternity services, there is a waiting period of 240 days after the joint enrollment of husband and wife in a group family Contract, 300 days for a non-group subscriber.

Here are some of the *ineligible* services that are frequently reported to the Plan, for which payment has to be declined:

(a) Medical treatment, or surgery other than surgery specified in (1) and (2) above, rendered in doctor's office or patient's home.

(b) X-ray services.

(c) Elective, non-emergency surgery in O.P.D. without admission of the patient as a bed patient in hospital.

(d) Drugs and medicines.

(e) Services of Dentists and other practitioners who are not fully licensed physicians.

(f) Obstetrical services where normal delivery occurs or would have occurred prior to the effective date for maternity services under the Subscription Contract.

PUBLICATION OF MANUAL—PROGRESS REPORT

Several months ago, Medical-Surgical Plan announced as one of its principal objectives for 1951 the publication of a complete *Manual of Information for Participating Physicians* containing a new Schedule of Benefits, revised in accordance with recommendations of various conference groups representing the profession throughout New Jersey which have been meeting with the Medical Director during the year.

Actual publication of the *Manual* has been delayed, because we have found it desirable to revise all the interpretive and administrative rules under which the Plan has been operating. In so doing, we are seeking to solve some of the problems and to remove some of the causes of misunderstanding that have been brought to our attention at various times by Participating Physicians.

Substantial progress has been made, and before long the new Schedule, together with revised General Regulations and Administrative Rules, will be in process of printing. We now definitely hope to forward the new Manual to Participating Physicians before January 1, 1952.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, September 14, 1951, DR. ANTHONY G. MERENDINO, presiding.

DR. RICHARD L. MASLAND, professor of Clinical Neurology, Bowman-Gray School of Medicine, Winston-Salem, N. C., was the guest speaker. His subject, "The Clinical Diagnosis of Neurological Disorders, with Manifestations Resembling Visceral Disease", was ably and interestingly presented with actual recordings of the patient's own description of the aura preceding an epileptic seizure.

MR. RICHARD I. NEVIN, Executive Officer of The Medical Society of New Jersey, addressed the Society and outlined the various aims and accomplishments of the State Society. He mentioned in particular the plans for the establishment of a grade A medical school in New Jersey, and the great strides that are being made in the realms of public relations.

DR. HARVEY N. VANDERGRIFT was elected to Associate membership.

Dr. Timberlake, reporting for the Legislative Committee, stated that the State Committee had gone on record as advocating the doubling of the present penalties in narcotic cases.

Dr. Holland reporting for the Public Relations Committee discussed the present set-up of the Emergency Medical Service and stated that it is unsuccessful and entirely inadequate as it now stands. The number of men willing to be on call is too small; eleven men are available and thirty are needed so that a rotating service of one night a month may be obtained. He stressed the importance of this service for the proper maintenance of good public relations, and added that wide publicity will be given to the plan during the month of October. Dr. Holland also spoke of the establishment of a Bureau of Economics, a plan for the collection of bills for the members of the Society, which plan would become self-sustaining after the first year.

Speaking as the treasurer, Dr. Holland stated that the dues for the present year will be $35.00, and asked for prompt payment.

Dr. Diskan, the new Editor of the Bulletin, announced that over $3,000.00 in advertisements had been obtained due to the diligent efforts of the members of his committee. He noted the various difficulties that had been encountered in the publication of the first Bulletin, but added that his editorial was a sincere expression of the feelings of his staff. It was the general feeling that this issue of the Bulletin was excellently done, and that Dr. Diskan and his staff should be commended for their fine execution of a difficult task.

Dr. Molitch reported a successful United Fund Campaign among the members of the profession.

It was voted that the Society, by contributing a sum of $50.00, become a life member of the Atlantic City Hospital Association.

Dr. Merendino commented on the great pride that the Society takes in the accomplishments of our most esteemed colleague, Dr. David B. Allman, and moved for a rising vote of applause in his honor. Dr. Allman's latest and greatest achievement is his election to the Board of Trustees of The American Medical Association.

BURLINGTON COUNTY

William F. Betsch, M.D., Reporter

The first meeting of the 1951-1952 season of the *Burlington County Medical Society* was held on September 13, 1951, at 9 p. m. at the Riverton Country Club, President T. B. Dickson, M.D., presiding.

The scientific paper dealt with *The Diagnosis and Treatment of Acute Pericarditis*, presented by DR. JOSEPH B. VANDER VEER, head of the cardiovascular department of the Pennsylvania Hospital.

This was followed by a brief talk by the State Executive Officer, Mr. Richard I. Nevin, who mentioned several of the programs planned this year by the State Society.

The diagnostic, treatment and nursing facilities for cases of cancer within Burlington County were discussed. It was pointed out that no resident of the county with cancer should want for adequate care regardless of his financial status.

HUNTERDON COUNTY

John B. Fuhrmann, M.D., Reporter

The regular meeting of the *Hunterdon County Medical Society* was held on July 24, 1951. MR. MILLARD CUSKADEN, Chief of State Plan Disability Benefits and MR. RICHARD I. NEVIN, Executive Officer of The Medical Society of New Jersey, were guests and each gave a short and interesting talk.

A revised edition of our By-Laws and General Regulations was presented, discussed and unanimously adopted.

Committee Chairmen were appointed by Dr. Bambara, President as follows: Public Health—Ray E. Trussell; Legislative—B. S. Fuhrmann; Medical Practice—C. G. Boyer; Cancer—B. S. Fuhrmann; School Health—J. B. Fuhrmann; Hospital—R. J. Germain; Public Relations—W. E. Boutelle.

The need for expanding the "on call" system now in force in Flemington to other parts of the county was discussed and the matter referred to the Public Relations Committee to report at the next meeting.

Buffet luncheon served after the meeting was enjoyed by the members and the members of the Woman's Auxiliary.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

MRS. THOMAS H. MCGLADE, President

The National Board of the Woman's Auxiliary to The American Medical Association voted a scholarship of $500.00 to the Careers for Nursing. The Auxiliary delegates voted at Convention to contribute $10,000 to the National Fund for Medical Education and $100.00 to the World Medical Association.

New Jersey Auxiliaries have granted scholarships to twenty-eight student nurses. This year an extensive Nurse Recruitment Plan has been formulated. It is hoped that by following it, Auxiliary members will be able to induce a greater number of young girls to choose nursing as their career.

Health Education programs, particularly in the field of Rural Health, are very well organized. Over fifteen hundred "Help Yourself to Health" pamphlets have been distributed to lay organizations in Essex, Hudson and Union Counties. Further promotion of the Community Health Programs was discussed when sixteen representatives from County Auxiliaries met in Trenton on September 18, 1951, to preview the films offered in the "Help Yourself to Health" pamphlets.

The Editor and the staff of the New Jersey News-Note have worked diligently on the Fall issue which has been sent to more than two thousand auxiliary members.

BOOK REVIEWS

The Odyssey of Modern Drug Research.* By Robert Burlington. 1951. Kalamazoo, Michigan. The Upjohn Company. Pp. 124.

In celebration of the new Upjohn plant, the company has published this handsome volume. It consists of six chapters of text in which are interleaved a half dozen "portfolios" of attractive color photographs. The publisher was careful not to overemphasize (and also not to neglect) Upjohn's contributions to pharmaceutical research. Most of the ethical manufacturers are mentioned by name with full credit for their enterprise. The story is told in readable but sophisticated prose, and is of absorbing interest. Most of us have no idea of how complicated, expensive, heart-breaking and honest this busines of drug research is. The book would be an excellent one to leave on the waiting room table, if some way could be found to keep the patient who has read half of it from lifting the volume and taking it home.

SAMUEL SHERMAN, M.D.

Child Psychiatry in the Community. A Primer for those Who Care for Children. Harold A. Greenberg, M.D. Pp. 296. New York, 1951. Putnam's. ($3.50)

With mounting interest in orthopsychiatry, the time is ripe for a text like this—a sort of source book, for parents, nurses, and others who care for children. Essentially this volume is an explanation of the structure and function of the child guidance clinic, but it also has chapters on juvenile delinquency, the role of the nurse and the school teacher in working with children in their hospitals and schools, and the emotional problems of crippled children.

The book begins with an interesting review of the child guidance movement. There is then a neat 100-page summary of child development and the genesis of conduct disorders. This is written in simple language but there is no sacrifice of clarity or accuracy. The second section of the book is an analysis of the functions of the psychiatrist, psychologist and social worker, individually and as a team. A glossary, a bibliography and a set of sample history forms are found in an appendix.

This is a comforting and helpful volume to recommend to the intelligent parents of difficult children, and it is good adjunct reading for social workers, nurses, probation officers, juvenile court judges, teachers and pediatricians.

WILLIAM SCHRAM, M.D.

Watch Out for the Weather. By Jacqueline Berke and Vivian Wilson. Pp. 226. New York, Viking Press, 1951. ($2.95)

In recent years medical science has so concentrated on the micro-organic and metabolic aspects in the cause of disease that it has neglected other factors that influence morbid processes. However, after reading "Watch Out for the Weather" the physician is reminded once more of the effect of weather on disease and,in fact, on life in general. For here is a small book written for the layman in a popular vein, which reviews the scientific investigations of the influence of meteorology on life processes. The authors have done a monumental piece of research.

The book concerns itself with the variety of such

* For editorial comment spring-boarded by this volume, see page 446, this JOURNAL.

influences as that of the effect of climate on business, on crime, on mental processes and even on mores of peoples. In all these the physician will be interested, but mostly he will be interested in the effect of weather on hypertension, on rheumatic fever, upon leprosy and on many other medical conditions. He is already familiar with the statistics showing that rheumatic fever is less common in a tropical climate than in a temperate climate (although recent studies seem to cast doubt upon its rarity in the tropics). The physician will be intrigued by the statistics showing that diabetes and even cancer are more common in northern climates than in the tropics. There is no doubt that the authors have sometimes overstressed their point and neglected other aspects which might influence such statistics, such as the relative competence of medical diagnosis in the two areas. Or rather, one should say, the original source of the statistics made such an error. The authors might have been more objective in choosing some of their source material.

The controversy which this book may stimulate should lead to further scientific research in this important but neglected field. What is known of the science of meteorology is here presented in a very readable fashion.

ALBERT M. SILVER, M.D.

Physical Diagnosis. By Ralph H. Major, M.D. 4th ed. Pp. 446. Philadelphia, W. B. Saunders Co., 1951. ($6.50)

In a medical era dominated by mechanical, electrical and chemical media of diagnosis, the disciplines of examination based on personal observations suffer a regrettable atrophy of disuse. It is refreshing and profitable, therefore, to scan the pages of a volume devoted to the neglected art of physical diagnosis, and to find therein a fund of subtle and intriguing maneuvers which cannot quite be replaced by the x-ray or clinical laboratory. Dr. Major's presentation, embellished by entertaining historical allusions, is clear, simple, and easily readable. The ponderous detail of text-book complexity is discarded for the lively and more personal format of the experienced lecturer.

Certain short-comings such as the complete absence of descriptive technics for examining the thyroid, the breast, and other important organs, may possibly result from the author's conviction that there are areas of teaching in which a printed page cannot begin to substitute for the practiced hands and eyes of the teacher in live demonstration.

Physicians in most fields will profit by the investment of an evening or two with this scholarly volume.

SANFORD M. LEWIS, M.D.

Fundamentals of Clinical Fluoroscopy; with Essentials of Roentgen Interpretation. By Charles B. Storch, M.D., New York. Pp. 196. New York, Grune & Stratton, Inc., 1951. ($6.75)

Here is a comprehensive and well-integrated study of the accepted best methods of use of the fluoroscope, the pitfalls to be avoided, and the knowledge gained by the proper use of this valuable instrument. Dr. Storch, who has had extensive experience in graduate teaching, has collected the lectures which he has been giving to students, residents and interns.

This volume covers the field of fluoroscopy, and the normal anatomy as well as the pathology which can be seen and studied is well presented. The material is well illustrated with numerous drawings and illustrations, making it easy to follow the text. The chapters on fluoroscopic examination of the chest and heart are especially satisfactory and are a good review of the many advantages in this type of study of these areas. The chapter on basic concepts with information relative to the protection and dangers in fluoroscopy is especially timely. This book is an excellent one for the beginner or one who has not used the fluoroscope extensively. It can also be used to advantage by those who have had considerable experience in the use of this valuable tool of the radiologist.

F. P. CARRIGAN, M.D.

Electroencephalography in Clinical Practice. By Robert S. Schwab, M.D., Harvard Medical School. Pp. 195. Philadelphia, W. B. Saunders Co., 1951. ($6.50)

This small, clearly worded volume will have usefulness on the office shelves of neurologists, psychiatrists, neurosurgeons, pediatricians and others who are called upon to use the E.E.G. as a diagnostic adjunct. This is not a text book. The first four chapters are of interest to the physician who wants to know how the E.E.G. operates. They give a brief orientation of technical background. In subsequent chapters, any clinician who wants to know how the E.E.G. may be helpful in a specific problem can find answers given briefly, often with explanatory case material.

Every hospital chief or superintendent who considers buying E.E.G. equipment to keep up to date should read the last chapter. It takes at least a year of training to begin to be able to interpret E.E.G. records completely. Too many hospitals are installing E.E.G. machines with the same confidence that they will turn out diagnoses as that the cigarette vending machines will yield cigarettes. The E.E.G. requires a full-time, trained technician, secretarial help, and an expert electroencephalographist for interpretation and supervision.

IRA S. ROSS, M.D.

Patterns of Disease. Frank L. Apperly, M.D., Pp. 456. Philadelphia, J. B. Lippincott Co., 1951. ($8.00)

Although basic in its implications, morbid anatomy, unfortunately, to most clinically minded individuals, is merely a burdensome description of alterations in structural details. For this reason, it fails to arouse the interest it should. This is understandable, since, as the author of Patterns of Disease points out "structure without function is meaningless". On the other hand, the converse is also true!

In recent years, there has been a greater attempt to correlate altered physiology and biochemistry with the structural changes described by the morbid anatomist. This book is a presentation of the role of altered physiology, the mechanisms involved and the end result of such changes. Quoting from

the preface: ". . . . the standard texts have omitted or not made clear two major phenomena: (1) the presentation of the disease process, beginning at the beginning (instead of beginning with the end result) and tracing its progression, step by step, first the biochemical changes, the altered functions, the altered anatomy and the final cure or death, and (2) the compensatory mechanisms adopted by the body—probably the most important general principle in the practical application of pathology to medicine. . . ." With this thesis in mind, the author develops his subject in an orderly fashion.

The first nine chapters are concerned with the reactive changes resulting from noxious stimuli of one sort or another. A chapter each is devoted to pigmentations, hypertrophy, hyperplasia, tumors and cysts. The other 18 chapters are devoted to special pathology, reviewing in order, each body system. Emphasis is placed throughout on altered function rather than altered structu e.

The book is an expanded outline of lecture notes used at the Medical College of Virginia. The author does not attempt to go into intricate and controversial detail, but confines himself to basic facts to develop his thesis. Line drawings and charts are liberally used to illustrate or stress important points. The book is well-worth the attention of busy physicians whose major interests lie in other fields for without belaboring the point it correlates morbid anatomy with the clinical manifestations of disease that they daily encounter.

GEORGE L. ERDMAN, M.D.

Bases of Human Behavior. Leon J. Saul, M.D. Philadelphia, Lippincott. Pp. 150.

It is the author's purpose to offer in this volume a biologically-rooted study of human behavior. The book is oriented to the medical student, and has value for the general practitioner or non-psychiatric physician who wants to understand the basic concepts of modern psychiatry. About 30 pages are devoted to the biologic substratum of behavior. The rest of the volume is a review of standard and current psychiatric theory, including the development of the personality, the role of the unconscious mind, and the like. Unfortunately the readability of the book is somewhat impaired by the author's fondness for clichés. One reads here of "wars and rumors of wars"; of "a distress painful to behold"; of the man "who pines for what is not" and even of "man's inhumanity to man"; and of a dozen other phrases that take the sparkle out of the language. If one doesn't mind these frequent threadbare stereotypes, the book is an adequate summary of the factors which account for human behavior.

ABRAHAM LEFF, M.D.

Handbook of Nutrition; a Symposium prepared under the auspices of the Council on Foods and Nutrition, American Medical Association. 2d ed. Pp. 717. Philadelphia, The Blakiston Company, 1951. ($4.50)

This handbook is arranged under four headings: individual nutrients, nutritional needs, nutritional deficiencies, and foods and their nutritional qualities. Each section contains papers dealing with protein, fat, carbohydrate, mineral and vitamin deficiencies. Whenever possible, the authors have brought the material up to date. The text is, in many places, beyond the comprehension of the average general practitioner. Much of the material is important to those interested in pediatrics, geriatrics, and internal medicine. Many of the articles are written by bio-chemists and deal with the dynamics of chemistry.

The article on nutrition need in illness and disease is too important to have been abbreviated. Much more information could have been included in this chapter. While there is a smattering of information on cholesterol metabolism, more could have been written about hypercholesteremia. An evaluation and integration of available data on this subject would have been timely and important to the practitioner of medicine.

The authors who contributed to the compilation of this book are among the outstanding nutritionists in this country. This is not a text book. It is primarily a reference work for one who wishes to keep up to date in all phases and problems of nutrition.

S. WILLIAM KALB, M.D.

Choose the Sex of Your Children; or, Factors Determining Sex. By A. L. Benedict, M.D. Pp. 281. New York, Allen Ross and Company, 1950. ($3.50)

This extremely well written text is couched in terms comprehensible to the layman. It is of absorbing interest and filled with amazing bits of information which Dr. Benedict fits skillfully into the mosaic of his subject. The many tables, charts and graphs add immensely to its value as an excellent summary of the very latest information for the modern who would be well informed. It is a well designed blueprint for young people interested in planning their family future, and it treats its subject with unusual completeness. In fact, Dr. Benedict's book will be of great value to every type of reader, parent, physician, student or scientist.

STANLEY J. GOODMAN, M.D.

A Textbook of Medicine. Ed. by Russell L. Cecil, M.D., and Robert F. Loeb, M.D. With 168 contributing authors. 8th ed. Pp. 1627. Saunders, Philadelphia, 1951. ($12.00)

To write an extensive review of a new edition of a work as well known as Cecil's *Textbook of Medicine* would be gilding the lily. This has been a standard textbook in medical schools and an oft-consulted reference book in private practice for many years. In its eighth revision (with Dr. Loeb assuming a joint editor role) this title continues to present authoritative discussions of those diseases which are seen in the practice of internal medicine. Many new subjects of current interest have been added and superfluous material has been deleted. Due to the deaths of previous authors new treatises on subjects are presented by current luminaries on the medical horizon. A roster of the contributing authors is a list of the medical "400". As with earlier editions the quality of paper and printing is of the highest calibre, and the book is an indispensable part of every medical library.

MARVIN C. BECKER, M.D.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV October, 1951 No. 10

THE SPECIFICITY OF THE TUBERCULIN REACTION

Esmond R. Long, The American Review of Tuberculosis, March, 1951.

Few procedures employed in the campaign to eradicate tuberculosis have been of greater value than the tuberculin test. It has been useful in the diagnosis of tuberculosis in the patient and priceless in studying epidemiology and public health practices in tuberculosis control. It has been used to determine the incidence of development of tuberculous infection in exposed groups, and studies of the tuberculin reaction in nurses have defined the limitations on its specificity and reliability with true tuberculous infection.

In modern medicine specific tests must be quantitative. The Mantoux tuberculin test supplies the quantitative aspect lacking in the earlier von Pirquet. The introduction of purified protein derivative (PPD) is a further refinement. Without a standard tuberculin, analyses of results on the specificity and stability of the tuberculin reaction would have little meaning.

The specificity of the tuberculin reaction has been called into question not a few times. Lumsden and his colleagues in 1939 failed to correlate tuberculin reactions and the calcifications of supposed primary tuberculosis in investigations in two areas. The later correlation of incidence of pulmonary calcification with reaction to histoplasmin and other evidence indicating that the calcifications in question are probably residues of histoplasmosis or other related infections has been a triumph of epidemiologic research. As a result, confidence in the specificity of the tuberculin reaction emerged to a higher level than ever before.

The problem of the relative specificity of low and high doses of tuberculin however is still unsolved. The correlation of strong reactions to weak doses of tuberculin with recent active or progressive tuberculous infection is clear. However, a correlation of weak reactions to strong doses of tuberculin with evidence of past or inactive tuberculous infection has been hard to establish. The assumption has been that allergic levels vary enormously and that high doses of tuberculin may be necessary to bring forth evidence of true tuberculous infection in persons natively sluggish in allergic response, or low in sensitivity because of a long lapse of time since the sensitizing infection.

Numerous facts support this assumption. Racial variations as well as variations in physiologic state, such as those caused by nontuberculous infections, pregnancy, hormonal influences, and nutritional factors are known to modify the intensity of the reaction. The fact that originally weak sensitivity tends to fade with time suggests that the vigorous reactions observed in intimate contacts of persons with open tuberculosis are the aftermath of a constant stimulation of sensitivity by repeated subclinical infections. Aronson noted a rise in sensitivity in persons vaccinated with BCG in contact with cases of tuberculosis. Finally, the low degree of sensitivity conferred by BCG is evidence that the micro-organisms themselves are concerned in the individual's level of tuberculin sensitivity.

Thus, reasons are at hand to explain variability in sensitivity to tuberculin. But puzzles have remained. Among these are the weakness and inconstancy of tuberculin reaction in some persons known to be in occasional contact with tuberculous patients, and the frequency, in certain regions, of tuberculin reactions of low intensity in persons not believed to be in contact with tuberculosis.

A paper by Tukey, DuFour, and Seibert throws light on the first of these problems. Serial tuberculin tests in a large number of student nurses tested at three-month intervals in their training course revealed a small cumulative increase in the incidence of reactions to the first-strength test dose of PPD (0.00002 mg.), which might be attributed to true tuberculous infection, and also a fluctuation in sensitivity to the second dose (0.005 mg.), from negative to positive and again to negative, in many students who never reacted to the first dose. The repeated injections themselves appeared to be ruled out as a cause of sensitivity. A recent analysis led the authors to conclude that these changes may be due to slight infection and gradual recovery.

However, another possibility remains open. In the same city, Teague and Placentra called attention to the fact that during the last 20 years studies with the standard tuberculin PPD in representative high schools have shown a steady and striking decline in the incidence of reaction to the first dose of PPD, but little drop in the incidence of reaction to the second dose. The drop in reaction to the first dose could be correlated with the decline in mortality from tuberculosis, but the persistence of sensitivity to the second dose may well be due to organisms other than the tubercle bacillus. This view recalls the problem of the "no visible lesion reactor" in cattle who are sometimes actually "skin lesion reactors" suffering from minor infections of the skin, apparently due to acid-fast bacteria of very low virulence occurring in soil and grass.

The suggestion that bacteria other than the tubercle bacillus may be responsible for nonspecific reactions to tuberculin in man has been made by others. An exhaustive analysis of a series of tuberculin reactions in nurses in many states, by C. E. Palmer and his associates, has shown extraordinary geographic variations in the pattern of reaction. They showed a significant correlation between tuberculosis mortality rates and frequency of reaction to the first dose of tuberculin. This was consistently higher in urban than in rural communities, which suggests that contact with other human beings is concerned. Reactions to the second dose in subjects failing to react to the first were not correlated with other evidence of tuberculous infection or with the frequency of reaction to the first dose of tuberculin. Within certain geographical areas, the level of second-dose sensitivity was remarkably uniform despite substantial variations in the percentages of first-dose reactions. These facts led the authors to the conjecture that an organism different from, but allergenically resembling, the tubercle bacillus is concerned. The geographic pattern and rural relationship suggested that a warm and moist climate and subtropical vegetation may be important. No one will disagree with the authors' suggestion that the "results of this study would appear to justify a serious search" to learn the nature of the agent concerned.

Thus two important possibilities in explanation of weak and fluctuating reactions to tuberculin remain. The first is that these reactions may be responses to intermittent slight infections with true tubercle bacilli. The loss of sensitivity in reactors exposed to tuberculosis after the contact is discontinued and the low level and not infrequent waning of sensitivity after BCG vaccination furnish strong evidence that this possibility is a real one.

The other explanation is infection by acid-fast microorganisms other than the tubercle bacillus. Evidence in favor of this is indirect, but suggestive. A direct attack on the problem is possible through experiments on sensitization of man by such bacilli and investigation of low-sensitivity reactors for infestation with acid-fast bacilli that might be responsible for the reaction.

SUPPLIED BY
NEW JERSEY TRUDEAU SOCIETY
the medical section of the
NEW JERSEY TUBERCULOSIS LEAGUE
15 East Kinney Street, Newark 2, New Jersey

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET
SITUATIONS, ETC.

$3.00 for 25 words or less: additional words 5c each
CASH MUST ACCOMPANY ORDER
Forms Close 20th of the Month

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

FOR SALE—Physician's office and home in Camden, N. J., consisting of waiting room, consultation room, 4 treatment rooms and laboratory on first floor, 3 rooms and bath apartment on second floor. Patients' files will be given to buyer. Doctor leaving city to specialize. Alex M. Malamut, 521 Cooper St., Camden, N. J. Telephone WOodlawn 4-0507.

FOR RENT—Furnished office suite in Irvington, N. J. Ideally situated; excellent opportunity for general practitioner. All facilities furnished. Write Box M, c/o THE JOURNAL.

PRACTICE WANTED — ORTHOPEDIST is desirous of obtaining a well-established orthopedic and traumatic practice with good income. Will consider buying property. Write Box 8 c/o The JOURNAL.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No Good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

STONE CORNER RESIDENCE — Near school, Brooklawn, N. J. Suitable for professional offices, plus two apartments. Large lot. Double garage. Ample parking. Less than $6,000.00 down, balance on existing mortgage, if desired. WOodlawn 3-5200. FIRST MORTGAGE SERVICE CO., 539 Market St., Camden 2, N. J.

$15,000—SPACIOUS Early American homestead; beautifully and carefully restored; wide entrance hall, living room, dining room, library, bedroom, powder room and modern kitchen on first floor; beautiful stairway leads to second floor of 4 bedrooms and modern bath; full attic and basement; excellent setting; beautiful lawn and tall trees; only short walk to R.R. trains to New York; very desirable location for doctor, dentist or convalescent home.
CHAS. W. GEIST, HIGH BRIDGE, N. J.
Since 1906 Phone 3

A DESIRABLE PROFESSIONAL OFFICE TO RENT, with apartment attached. A general practitioner has located here for the past 30 years. For further information write to: Grad Agency, 209 Market St., Trenton, N. J., or phone: Trenton 9693 or 5-6673.

GENERAL AND SURGICAL PRACTICE FOR SALE—Six room office in heart of industrial city. Will stay to introduce hospital appointment. Owner specializing. Price very reasonable. Write Box G, c/o THE JOURNAL.

FOR SALE—Baker Ultra Violet Ray machine with applicators. In excellent condition. Price $75.00. Write Box A, c/o THE JOURNAL.

FOR SALE—EXCHANGE—OR RENT—to doctor or dentist. A furnished 13 room house with all late improvements, newly decorated. Overlooking New Jersey State Yacht Basin in Forked River. No doctor or dentist in town. Write: Charles W. Stange, 227 N. Park St., East Orange, N. J.

REPRESENTATIVE FUNERAL DIRECTORS

OF THE STATE OF NEW JERSEY

Special and Dependable Service Day and Night. Special Attention Given to Hospital Calls, Train and Express Shipments.

Place	Name and Address	Telephone
ATLANTIC CITY	Jeffries & Keates, 1713 Atlantic Ave.	ATlantic City 5-0611
ELIZABETH	Aug. F. Schmidt & Son, 139 Westfield Ave.	ELizabeth 2-2268
MORRISTOWN	Raymond A. Lanterman & Son, 126 South St.	MOrristown 4-2880
NEWARK	Peoples Burial Co., 84 Broad St.	HUmboldt 2-0707
PATERSON	Robert C. Moore & Sons, 384 Totowa Ave.	SHerwood 2-3914
RIVERDALE	George E. Richards, Newark Turnpike	Pompton Lakes 164

in the

DILANTIN®

"...little depression

...strong opposition to major convulsions."

PARKE, DAVIS & COMPANY

management of epilepsy

"The introduction of diphenylhydantoin was a marked advance in therapy, because this drug, although distantly related to the barbiturates, produced little depression while exerting strong opposition to major convulsions."*

Extensive clinical experience confirms the finding that DILANTIN—producing little or no depression—prevents seizures or greatly reduces their number and severity in the majority of epileptic patients.

DILANTIN Sodium (diphenylhydantoin sodium, Parke-Davis) is available in Kapseals® of 0.03 Gm. (½ gr.) and 0.1 Gm. (1½ gr.) in bottles of 100 and 1000.

*Cutting, W. C.: A Manual of Clinical Therapeutics, ed. 2, Philadelphia, W. B. Saunders & Co., 1948, p. 484.

DETROIT 32, MICHIGAN

MEDICAMENTA VERA · P & CO.

Dispels the ever-lurking shadow

Even in America today, surveys of certain groups have revealed a disturbing incidence of rickets.

Physicians realize the danger of this ever-lurking shadow, and the need for *regular, reliable protection.*

They know, too, that for most patients this protection must be economical.

That is why, *for seventeen years,* they have written so many millions of prescriptions for Mead's Oleum Percomorphum.

No other vitamin product has ever had such a background of clinical evidence.

And rarely does the physician have such *assurance* at the tip of his pen.

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, NO. 11 NOVEMBER, 1951 Subscriptions, $3.00 per Year Single Copies, 30 Cents

CONTENTS—Pages 493 to 536

Roster of Officers and Committee Chairmen, Advertising page 3A

Place of Publication, Printing and Mailing: 116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society: 315 West State St., Trenton 8, N. J.

Address all communications for *publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

STATE SOCIETY PLAN
Accident and Health Insurance

The MEDICAL SOCIETY OF NEW JERSEY has officially selected the plan of our Company for Accident and Health Insurance and the policy is now available to Society members.

BRIEF OUTLINE OF COVERAGE

Accidental Bodily Injury Benefits —Full monthly benefit for total disability, from FIRST DAY, limit 60 months. One-half monthly benefit for partial disability, limit 6 months. Limit of time for total and partial combined 60 months.

Sickness Benefits —Full monthly benefit for total disability, commencing with EIGHTH DAY of disability, limit 24 months, house confinement not required.

Arbitration Clause —The Committee on Medical Defense and Insurance of The Medical Society of New Jersey are the SOLE arbiters in the event of any claim disagreement between Company and policyholder.

Cancellation Clause —Cancellation Clause, Standard Provision No. 16, not included in policy. The Company reserves the right to decline to renew on the following grounds only:

A. Non-payment of premium.
B. If the insured retires or ceases to be actively engaged in the medical profession.
C. If the insured ceases to be an active member of The Medical Society of New Jersey.
D. If renewal is refused on all policies issued to all members of the Society, in which event 60 days prior notice in writing must be given.

PREMIUM RATES

(Applicable to ages at entry and attained at annual renewal of insurance)
Ages shown below signify next birthday.

Monthly Benefits	Disbursement Benefits	ANNUAL RATES* Ages up to 50	Ages 51 to 60	Ages 61 to 65**
$100.00	$ 5,000	$ 29.50	$ 34.00	$ 43.00
150.00	7,500	43.60	50.35	63.85
200.00	10,000	57.70	66.70	84.70
300.00	15,000	85.90	99.40	126.40
400.00	20,000	114.10	132.10	168.10
500.00	20,000	141.30	163.80	208.80
600.00	20,000	168.50	195.50	249.50

* Premiums may be paid half-yearly or quarterly, pro-rata.
* All rates above INCLUDE $1000 Accidental Death Benefit. Additional Accidental Death Benefit up to $4000 (making a total of $5000) may be procured for an additional annual premium of $1.30 per $1000.
Coverage for hospitalization and nursing fees is available at a small additional premium.
** Although the age limit for acceptance of risks is the 65th birthday, once issued there is no termination age limit for renewal and the rates of the last age group remain stationary.

This Company has been in business more than fifty-six years and is one of the leading writers of Accident and Health Insurance, with a surplus to policy holders of more than five million dollars.

If you are not insured under this plan or if you want further information, communicate with the undersigned managers.

Issued Exclusively by
NATIONAL CASUALTY COMPANY
Through
E. and W. BLANKSTEEN, Mgrs.
Authorized Disability Insurance Representatives of The Medical Society of New Jersey
75 MONTGOMERY STREET DElaware 3-4340 JERSEY CITY 2, N. J.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*..... Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, SIGURD W. JOHNSEN .....Passaic
President-Elect, HARROLD A. MURRAY .....Newark
First Vice-President, HENRY B. DECKER .....Camden
Second Vice-President, ELTON W. LANCE .....Rahway
Secretary, MARCUS H. GREIFINGER .....Newark
Treasurer, GEORGE J. YOUNG .....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953) .....Atlantic City
REUBEN L. SHARP, *Secretary* (1954) .....Camden
SIGURD W. JOHNSEN .....Passaic
HARROLD A. MURRAY .....Newark
HENRY B. DECKER .....Camden
ELTON W. LANCE .....Rahway
MARCUS H. GREIFINGER .....Newark
GEORGE J. YOUNG .....Morristown
ALDRICH C. CROWE .....Ocean City
WILLIAM F. COSTELLO (1953) .....Dover
WILLIAM C. WILENTZ (1953) .....Perth Amboy
JOSEPH G. COLEMAN (1953) .....Hamburg
L. SAMUEL SICA (1954) .....Trenton
DAVID W. GREEN (1954) .....Salem
J. LAWRENCE EVANS (1954) .....Woodcliff
ROYAL A. SCHAAF (1952) .....Newark
WILLIAM E. DODD (1952) ..... Beach Haven
C. BYRON BLAISDELL (1952) ..... Asbury Park

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1954)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....JACOB J. MANN, Perth Amboy (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1954)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1953) .....Hoboken
WILLIAM F. COSTELLO (1953) .....Dover
J. WALLACE HURFF (1952) .....Newark
ALDRICH C. CROWE (1952) .....Ocean City
ELMER P. WEIGEL (1952) .....Plainfield
L. SAMUEL SICA (1952) .....Trenton

Alternates

ALBERT B. KUMP (1953) .....Bridgeton
WALTER F. PHELAN (1953) ..... Elizabeth
JOHN H. ROWLAND (1952) .....New Brunswick

HERSCHEL PETTIT (1952) .....Ocean City

COMMITTEES AND CHAIRMEN

Committee	*Chairman*
Finance and Budget	DAVID B. ALLMAN, Atlantic City
Medical Defense and Insurance	J. WALLACE HURFF, Newark
Publication	J. LAWRENCE EVANS, JR., Leonia
Scientific Work	
Honorary Membership	ROYAL A. SCHAAF, Newark
Woman's Auxiliary	LEWIS C. FRITTS, Somerville
Medical Education	FRANCIS M. CLARKE, New Brunswick
Annual Meeting	ASHER YAGUDA, Newark
Scientific Program	JOHANNES F. PESSEL, Trenton
Scientific Exhibit	WILLIAM W. HERSOHN, Margate City
Welfare	SAMUEL BLAUGRUND, Trenton
Legislation	C. BYRON BLAISDELL, Long Branch
	JOSEPH F. LONDRIGAN, *Executive Secretary*, Hoboken
Public Relations	JOSEPH E. MOTT, Paterson
Medical Practice	ALBERT B. KUMP, Bridgeton
Public Health	JOSEPH I. ECHIKSON, Newark
New Jersey Medical School	STUART Z. HAWKES, Newark
Adult Disease Control	NATHAN SWERN, Trenton
Cancer Control	WILLIAM O. WUESTER, Elizabeth
Cardio-Vascular Diseases	JEROME G. KAUFMAN, Newark
Chest Diseases	HARRY J. WHITE, Metuchen
Child Health	FREDERIC W. LATHROP, Plainfield
Conservation of Vision and Hearing	REINHOLD W. TERKUILE, Ridgewood
Maternal Welfare	JOHN D. PREECE, Trenton
Mental Hygiene	HARRISON F. ENGLISH, Trenton
Rehabilitation	H. EUGENE READING, Paterson
Rural Health	RALPH M. L. BUCHANAN, Phillipsburg
School Health	ELTON W. LANCE, Rahway
Venereal Disease Control	ROBERT L. MCKIERNAN, New Brunswick
Anesthesiology	EDWARD T. LAWLESS, Upper Montclair
General Practice	D. WARD SCANLAN, Atlantic City
Group Practice	CLARENCE B. WHIMS, Ventnor
Hospital Relationships	FLORENTINE M. HOFFMAN, New Brunswick
Laboratory Medicine	ASHER YAGUDA, Newark
Nursing	ANDREW C. RUOFF, Union City
Pharmaceutical Problems	JOHN L. VARRIANO, Jersey City
Physical Medicine	ELMER J. ELIAS, Trenton
Radiology	JOHN L. OLPP, Tenafly
Welfare Services	HAROLD C. COX, Hightstown
Workmen's Compensation and Industrial Health	RALPH A. YOUNG, Linden
Emergency Education Program	HENRY B. DECKER, Camden
Physician Resources	WILLIAM G. HERRMAN, Deal

SLOW STARVATION

The most significant factor in the metabolic breakdown of the geriatric patient.

Much of the infirmity of old age stems directly and indirectly from hyponutrition and malnutrition.

• • •

CAPSULES

GERIPEUTIC

(MARA)

The most outstanding geriatric vitamin formula designed in therapeutic dosage.

• • •

The geriatric problem is rapidly assuming top priority in the field of medicine. The number of persons at age 65 or over has almost quadrupled in the past half century.

IN OLD AGE!!

The need for nutritional supplementation in older patients is firmly established.

As a dietary supplement in therapeutic dosage

CAPSULES
GERIPEUTIC

(MARA)

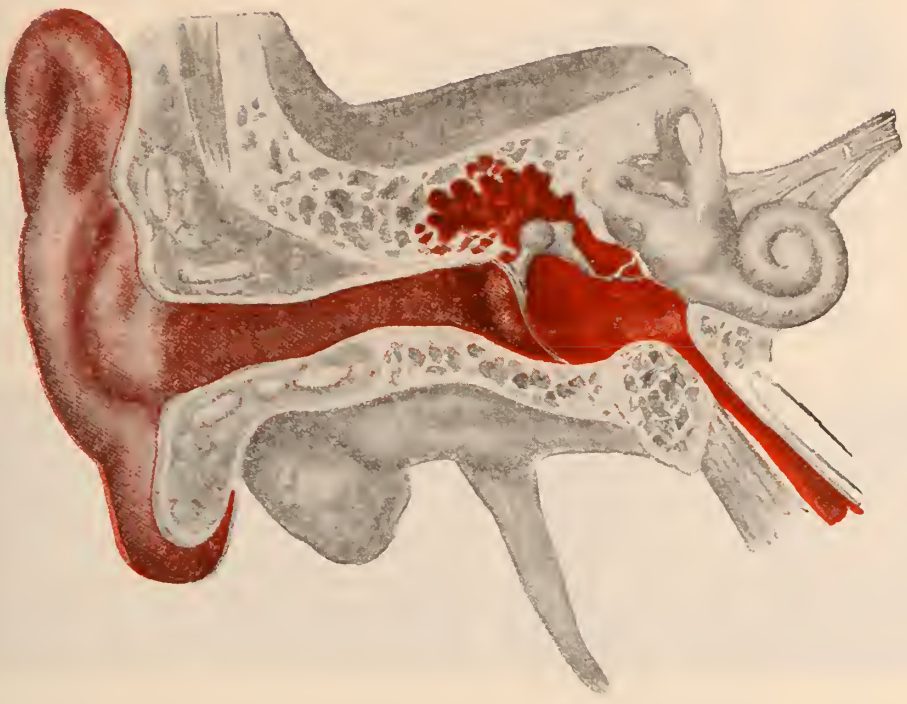
Six Capsules (Daily Dose) Provide:

Rutin	120 mg.
Choline Dihydrogen Citrate	1500 mg.
Inositol	750 mg.
Ascorbic Acid	300 mg.
Niacinamide	300 mg.
Alpha Tocopherol	100 mg.
Thiamine Hydrochloride	75 mg.
Riboflavin	37.5 mg.
Pyridoxine Hydrochloride	6 mg.
Vitamin B 12	30 mcg.

Available at all Drug Stores *Moderately Priced*

The Mara Laboratories, Inc.

HARRISON NEW JERSEY



in upper respiratory infections:

"Our cases of bronchopneumonia, otitis media, tonsillitis, sinusitis, and laryngotracheo-bronchitis responded ... rapidly to terramycin."

Potterfield, T. G., and Starkweather, G. A.: J. Philadelphia General Hosp. 2:6 (Jan.) 1951.

CRYSTALLINE TERRAMYCIN HYDROCHLORIDE

available | *Capsules, Elixir, Oral Drops, Intravenous, Ophthalmic Ointment, Ophthalmic Solution.*

ANTIBIOTIC DIVISION **Pfizer** CHAS. PFIZER & CO., INC., *Brooklyn 6, N. Y.*

Investigate MAXISERVICE

GET THESE BENEFITS NOW!

MAXISERVICE PROVIDES EQUIPMENT OF YOUR CHOICE

MAXISERVICE IS EASY TO BUY...

MINIMUM CASH OUTLAY

MAXISERVICE COVERS EVERYTHING

ONE MONTHLY CHARGE

MAXISERVICE SIMPLIFIES YOUR INCOME TAX PROBLEMS

100% CHARGEABLE AGAINST OPERATING EXPENSES...

MAXISERVICE

CONSERVES YOUR CAPITAL

MAXISERVICE

SAVES INTEREST COSTS

MAXISERVICE HELPS YOU EARN AS YOU GO

NO INVESTMENT

MAXISERVICE GIVES YOU "EASY TO BUDGET" FIXED COSTS

MAXISERVICE ELIMINATES OBSOLESCENCE RISKS

NO INVESTMENT IN OBSOLETE EQUIPMENT

LATEST DEVELOPMENTS ALWAYS AT YOUR SERVICE

Economical, convenient, flexible — the GE Maxiservice Plan offers you the world's finest x-ray equipment with no investment. One monthly fee covers everything. Installation, inspection and repair service — even tube replacement.

Find out all about the GE Maxiservice Plan. It may be just what you're looking for. Ask your GE x-ray representative for details, or write:

GENERAL ELECTRIC

MAXISERVICE ELIMINATES PROBLEM OF DEPRECIATION

GE X-RAY PAYS THIS BILL

MAXISERVICE ELIMINATES MAINTENANCE COSTS

GE X-RAY PAYS THIS BILL

MAXISERVICE ELIMINATES REPAIR PARTS COSTS

GE X-RAY PAYS THIS BILL

MAXISERVICE ELIMINATES TUBE COSTS

GE X-RAY PAYS THIS BILL

MAXISERVICE GIVES YOU FLEXIBILITY

MAKES IT EASY TO CHANGE OR ADD TO EQUIPMENT

MAXISERVICE GIVES YOU PEAK OPERATING EFFICIENCY

GE X-RAY PERIODICAL MAINTENANCE CHECK UP GUARANTEES THIS

MAXISERVICE ELIMINATES COST OF INSURANCE ON EQUIPMENT

GE X-RAY PAYS THIS BILL

MAXISERVICE ELIMINATES LOCAL PROPERTY TAXES ON EQUIPMENT

GE X-RAY PAYS THIS BILL

Direct Factory Branches:

NEWARK — 10 Third Street **PHILADELPHIA — 1624 Hunting Park Avenue**

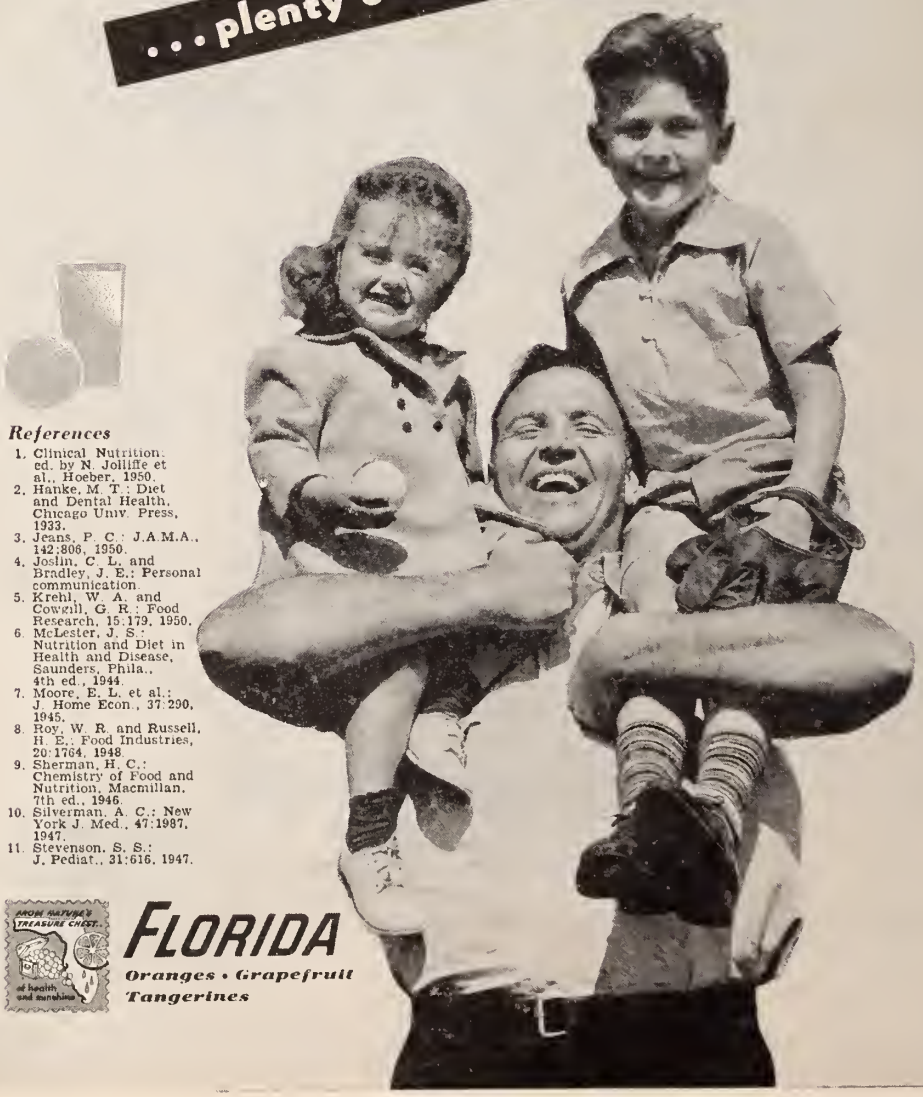
they deserve the best . .

Implicit in a happy healthy childhood is maximal nutrition—and one of the essential dietetic guideposts to vigorous adulthood is adequate vitamin C[1,2,9] (¼-4 oz. for infants up to 1 year;[10,11] 4-8 oz. for older children).[4] Fortunately, most every youngster likes the taste of Florida orange juice and the "lift" its easily assimilable fruit sugars* provide.[6] It is well-tolerated and virtually non-allergenic.[3] And, under modern techniques of processing and storage—it is possible for citrus fruits and juices (whether fresh, canned or frozen) to *retain their ascorbic acid content,*[5,8] *and their pleasing flavor,*[7] *in very high degree and over long periods.*

FLORIDA CITRUS COMMISSION • LAKELAND, FLORIDA

Citrus fruits — among the richest known sources of Vitamin C — also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.

. . . plenty of citrus fruit



References

1. Clinical Nutrition, ed. by N. Jolliffe et al., Hoeber, 1950.
2. Hanke, M. T.: Diet and Dental Health, Chicago Univ. Press, 1933.
3. Jeans, P. C.: J.A.M.A., 142:806, 1950.
4. Joslin, C. L. and Bradley, J. E.: Personal communication.
5. Krehl, W. A. and Cowgill, G. R.: Food Research, 15:179, 1950.
6. McLester, J. S.: Nutrition and Diet in Health and Disease, Saunders, Phila., 4th ed., 1944.
7. Moore, E. L. et al.: J. Home Econ., 37:290, 1945.
8. Roy, W. R. and Russell, H. E.: Food Industries, 20:1764, 1948.
9. Sherman, H. C.: Chemistry of Food and Nutrition, Macmillan, 7th ed., 1946.
10. Silverman, A. C.: New York J. Med., 47:1987, 1947.
11. Stevenson, S. S.: J. Pediat., 31:616, 1947.

FLORIDA

Oranges • Grapefruit Tangerines

24 hour anticoagulant action

A single, deep, subcutaneous injection of 30,000 to 40,000 U.S.P. units (approximately 300 to 400 mg.) of Depo*-Heparin "will give a lengthened coagulation time of 2 to 4 times normal for about 24 hours."[1]

This advance in the management of thromboembolic phenomena such as coronary artery disease and thrombophlebitis, was made possible through investigations by Upjohn and other medical researchers which led to the development of Depo-Heparin.

Depo-Heparin

Depo-Heparin Sodium is available in 1 cc. size cartridges with disposable syringe. Each cc. contains:

Heparin Sodium	20,000 U.S.P. units (approximately 200 mg.)
Gelatin	180 mg.
Dextrose Anhydrous	80 mg.
Water for injection q.s.	
Preserved with sodium ethyl mercuri thiosalicylate 1:10,000	

1. *Smiles, William J.: Long-Acting Heparin Preparation: A Useful Adjunct in Anticoagulant Therapy. U. S. Armed Forces Med. J., Vol. II., No. 1 (Jan.) 1951*

*Trademark, Reg. U. S. Pat. Off.

Upjohn Research

for Medicine... Produced with care... Designed for health

THE UPJOHN COMPANY, KALAMAZOO, MICHIGAN

Adequate Protein Nutrition... A Vital Factor in Recovery Processes

Among the problems of convalescence and of preoperative and postoperative care, adequate protein nutrition assumes vital importance. Such is indicated by the observation that a deficiency of but one essential amino acid in the diet of the normal individual quickly leads to an acute amino acid deficiency syndrome characterized by appetite failure, weight loss, and malaise.

Animal studies have forcefully demonstrated the adverse effect of inadequate protein nutrition on recovery processes.[1] Protein-depleted rats fed an adequate repletion ration manifest a rapid recovery of lost weight, of normal plasma protein and hemoglobin levels, of certain enzyme systems, and of normal capacity to synthesize antibody protein and to resist infection. On the other hand, reduction in the amount of but one essential amino acid in the repletion ration quickly causes loss of appetite, diminished food consumption, and inadequate weight recovery. This quick appearance of overt symptoms due to a shortage of an essential amino acid contrasts sharply with the delayed appearance of symptoms induced by deficient intake of any other essential nutrient.

These manifestations of acute amino acid deficiency noted in the rat can occur as readily in the normal human subject consuming a diet lacking in any one of the eight essential amino acids.[2] Loss of appetite and of body nitrogen accompanied by malaise quickly results. Furthermore, addition of the missing amino acid to the diet quickly restores the appetite, nitrogen equilibrium, and the previous state of health. Apparently, even in normal persons, lack of an amino acid in the diet partially or completely interrupts protein synthesis as well as increases tissue protein catabolism.[1] The conclusion is incontestable, therefore, that adequate protein nutrition is vital for speeding the processes of recovery from massive disease or major surgery.

Meat—all varieties and cuts—richly provides protein containing all the essential amino acids which are needed for the repair of traumatized tissue, the upkeep of normal tissue, and for other vital uses. Furthermore, meat is a dependable dietary source of iron and the vitamin B complex—riboflavin, niacin, thiamine, pyridoxine, and the newly discovered B_{12}. In health and in illness, meat ranks high as an important factor of the well-balanced diet.

---

1. Cannon, P. R.: Recent Advances in Nutrition with Particular Reference to Protein Metabolism, Lawrence, Kansas, University of Kansas Press, 1950, pp. 56-60.

2. Rose, W. C.: The Nutritive Role of the Amino Acids, The Science of Nutrition, New York, The Nutrition Foundation, 1946.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

ACCEPTED COUNCIL ON FOODS AND NUTRITION AMERICAN MEDICAL ASSOCIATION

American Meat Institute

Main Office, Chicago... Members Throughout the United States

YOU, Doctor, are the best judge, so

BELIEVE IN YOURSELF!

With so many claims made in cigarette advertising, most doctors prefer to judge for themselves. So, Doctor, won't you make this simple test?

Take a PHILIP MORRIS— and *any* other cigarette. Then,

1. Light up either one. Take a puff—don't inhale—and s-l-o-w-l-y let the smoke come through your nose.

2. Now do exactly the same thing with the other cigarette.

Then, Doctor...BELIEVE IN YOURSELF!

PHILIP MORRIS

Philip Morris & Co. Ltd., Inc.
100 Park Avenue, New York 17, N. Y.

"Meteor"

The *quality* X-ray unit in the low-priced field. Built to the same high Picker standards, by the same craftsmen, in the same factory as all the other units you see here. A simple, honest utility X-ray machine for the modest budget; it is easy to operate, dependable in performance. With it you can do both fluoroscopy and radiography; the patient either vertical or horizontal.

"Century"

You'll find more Picker "Century" 100 MA units actively in use than any other similar apparatus... a record won on sheer merit. Component design permits assembly of a machine tailored exactly to your needs — 100 MA or 200 MA capacity—with a single X-ray tube or with two tubes, stationary or rotating anode—the table tilted manually or by motor drive—for fluoroscopy or radiography or both.

all you expect... and more

Picker X-ray

at any level of investment

"1225"

The heavy-duty X-ray table for radiographic and fluoroscopic service in the hospital or radiologist's office. Two shockproof X-ray tubes (either stationary or rotating anode). Smooth positive motor drive. Equipped (optionally) with the Picker automatic motor-driven *Spotfilmer* ... with choice of the whole film area or vertical or horizontal half split-films or four spots on a 6½" by 8½" film.

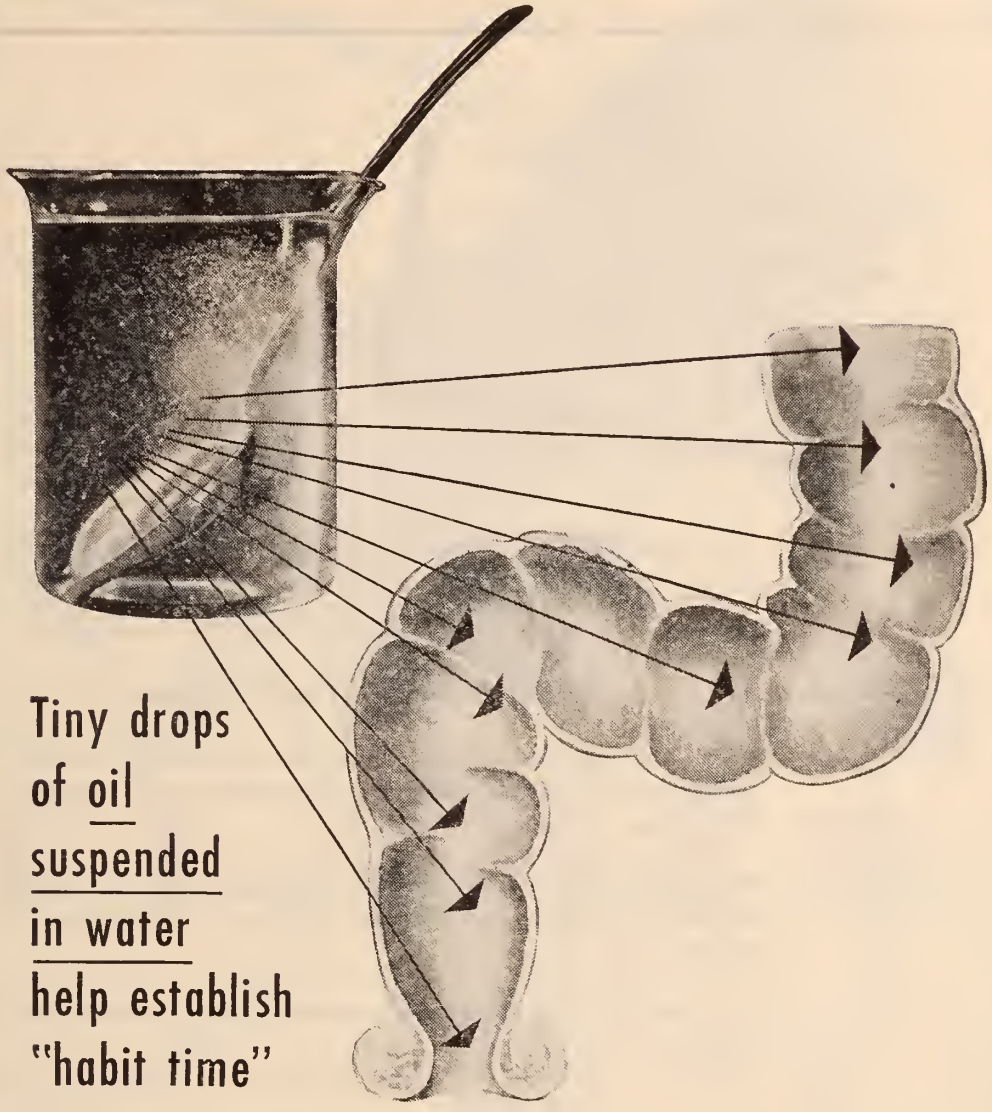
"Constellation"

Introduced a scant two years ago, the Picker "Constellation" took the X-ray world by storm; its reputation has since grown to towering proportions. Never before has there been an X-ray table with which a radiologist could do so many things so easily and efficiently. Under absolute instant-reversing control he can, for example, back-angle it to full 45° Trendelenburg tilt during myelography.

PICKER X-RAY CORPORATION · 300 FOURTH AVE., NEW YORK 10, N. Y.

NEWARK 2 *(Northern)* N. J., 972 Broad Street
LINCOLN PARK, N. J., Sewanois Avenue
MAPLEWOOD, N. J., 17 Van Ness Court

PHILADELPHIA 4 *(Southern)* PA., 103 S. 34 Street
MATAWAN, N. J., 54 Edgemere Drive
NUTLEY, N. J., 226 Hillside Avenue



Tiny drops of oil suspended in water help establish "habit time"

PETROGALAR provides a moderate intake of mineral oil in the form of a water-miscible suspension.

This oil-in-water combination permeates the fecal residue to produce:

- Gentle lubricant action, without "leakage"
- Soft, nonirritating, easily passed stools
- Comfortable bowel movement

PETROGALAR may be taken alone or in milk, water or fruit juices—with which it is readily miscible.

PETROGALAR®

Aqueous Suspension of Mineral Oil, Wyeth

Wyeth®

Wyeth Incorporated, Philadelphia 2, Pa.

specific
therapy for
urinary tract
infections

SULAMYD®

(sulfacetamide Schering)

Rapidly cleared from the blood stream and excreted in high concentration in the urine in which it is highly soluble, SULAMYD combines broad antibacterial activity with a high degree of systemic safety and minimal renal hazard. Crystalluria is rare; damage due to renal blockage has never been reported.

Available in 0.5 Gm. tablets.

Schering CORPORATION · BLOOMFIELD, NEW JERSEY

SULAMYD

SCHERING

Table without salt, mouth without saliva—

Randle Cotgrave (1611)[1]

The thought of meals without salt is unappealing to most patients who are placed on a salt-restricted diet.

The prescription of Neocurtasal can prove to be a most encouraging measure.

Neocurtasal is a "trustworthy, nonsodium-containing salt substitute"[2] designed to make the low sodium diet palatable.

For all salt (sodium)-free diets—Neocurtasal may be used wherever sodium restriction is indicated: congestive heart failure, hypertension, arteriosclerosis, pregnancy (to forestall tendency to fluid retention). It contains potassium chloride, ammonium chloride, potassium formate, calcium formate, magnesium citrate and starch. Potassium content 36%; chloride 39.3%; calcium 0.3%; magnesium 0.2%.

Neocurtasal®

SALT WITHOUT SODIUM

Available in 2 oz. shakers and 8 oz. bottles.

Winthrop-Stearns INC.
NEW YORK 18, N. Y. WINDSOR, ONT.

1. From Burton Stevenson's "Home Book of Proverbs, Maxims and Familiar Phrases:" Macmillan Co., 1948, p. 2028.
2. Heller, E. M.: The Treatment of Essential Hypertension. *Canad. Med. Assn. Jour.*, 61:293-299, Sept., 1949.

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 567

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month

VOL. 48, NO. 11 NOVEMBER, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE

In the recent report of the nation-wide survey of physicians' incomes, made in 1950 by the Office of Business Economics of the United States Department of Commerce in cooperation with the Bureau of Medical Economic Research of the American Medical Association, some very striking facts are noted. The gap between the incomes of specialists and general practitioners has narrowed appreciably since 1929. Average net income of full specialists for 1949 was $15,014, while that of the general practitioner was $8835. The part specialist averaged $11,758. These figures indicate a marked increase in the average income of the general practitioner.

This economic fact is probably the best explanation for the resurgence of the general practitioner and for the increased prestige and esteem which he now commands. And this is as it should be. In terms of services rendered, the general practitioner is entitled to a more adequate compensation; and, conversely, the specialist is not entitled to the relatively greater compensation which he formerly received.

That economic factors affect the individual practice of medicine was clearly demonstrated by the survey. But they do more than that—they affect the entire structure of medical practice. This bears out the contention which we have always made—that a compulsory system of medical care would result in an inferior type of medical practice. This also was the conclusion reached by the Brookings Institute in their recent report.

The fact that the income of the general practitioner has risen leads to the conclusion that the standard of medical service rendered by him has improved. This, too, is as it should be. The overall increase in cost of medical service to the patient has increased by only 48 per cent, while the general increase in the cost of living was 72 per cent. These figures refute the contention that the costs of medical care have disproportionately increased with reference to other costs of living.

In conclusion we are encouraged to observe that this report indicates that increased economic rewards go to those physicians who maintain the highest standards of medical practice. It also demonstrates that the consuming public —our patients—are capable of discerning differences in medical services, and that they utilize those services which to them seem best.

Lest anyone assume that I am therefore belittling specialists or minimizing their services, let me remind you that the report shows an increase of 70 per cent in the number of specialists since 1929. Likewise, the average income of specialists is still double that of the general practitioner. These two facts well demonstrate, I think, that specialists are rendering services recognized as of the highest and most desirable type. In their behalf no apology is needed.

Sigurd W. Johnsen, M.D.

HUMAN MEDICAL EXPERIMENTATION

The recent tragedy at the University of South Dakota where a young and apparently unsupervised physician accidently administered a fatal overdose of methadon to two volunteers, calls for a re-appraisal of human experimentation in medical investigation. If such incidences recur, the public may demand cessation of such experiments, just as human dissection was proscribed during the Middle Ages, and Jenner's early attempts at vaccination resisted. Of course medical progress does require some experimentation on human volunteers. If a hostile public reaction were to develop, the march of medicine would slow down to a walk.

It is therefore incumbent upon organized medicine as a whole, and individual physicians everywhere, to prevent the recurrence of similar tragedies. A model for such prevention is provided by the regulations of the federal Pure Food and Drug Act which have established definite steps before a new drug is released for general use: animal investigation, study of a new preparation by well-recognized clinics or hospitals, its subsequent release for investigative purposes on a wider clinical basis, and finally general distribution after all the contraindications and limitations have been defined.

A similar code of procedure is needed for the guidance of studies in which human volunteers are employed. Such a code should include a careful evaluation of the problem to be studied, supervision by an experienced senior investigator, a method for double-checking the physiologic effects and dosage of any drugs that may be administered, and adequate attention to the availability and proximity of antidotes in case an accident occurs.

Such measures are needed to assure the freedom of medical investigators from outside disapprobation and interference.

ARTICLES IN BASIC RESEARCH

In the questionnaire submitted to the members in May, 424 of the 1345 respondents asked for "more basic scientific and research papers even if it means calling on many out-of-state authors". And 675 of those who answered called for "more articles dealing with treatment and practical clinical facts". The latter represented a solid majority of all who replied. But the 424 who wanted more basic science papers speak for a large enough minority to raise a serious question.

In a previous editorial (July issue, page 301) we pointed out that most basic science papers emanated from medical school research laboratories. Since we have no medical school in New Jersey, the obvious way to meet this demand would be to call on more out-of-state authors. Many members wrote comments on this problem, and for the most part there was resistance to favoring out-of-state authors over New Jersey doctors. Repeatedly, there was written in "no out-of-state authors" or words to that effect. "Keep this a *New Jersey* publication" was another variant. Others said that the specialty journals were the proper channels for basic research, not the state medical periodicals. This, as a matter of fact, has been the general attitude of the Publication Committee for several decades. The "JOURNAL is for practicing physicians in New Jersey" was a common comment. Others thought that the basic research belonged in books not in the periodical literature. Many asked, in one form or another, "Why should our state JOURNAL be used to publicize out-of-state doctors?", an understandable comment, if a somewhat parochial one.

However a few members voted vigorously the other way. "Publish the best articles you can get; never mind the author's address" was an occasional comment. Several thought that a single basic science or research article per issue (regardless of this one author's residence) would be a good quota. This is a practical suggestion to which your Publication Committee promises to give careful thought. Repeatedly there were suggestions that somehow The Medical Society of New Jersey "encourage" more research and publish locally done research projects. More than one member thought that our hospital laboratories should be solicited for such work.

The best answer is probably this. New Jersey, though it has no medical school, does have several giant research laboratories connected either with universities or with drug manufacturing plants. In addition, many of our hospitals are doing top-notch research work. The doctors concerned often prefer to submit their manuscripts to journals of national or specialized circulation. Can some way be found to solicit these researches on behalf of our JOURNAL? And if they do submit their papers to us, will they be of general reader interest? It is suggested that research and basic science workers in New Jersey prepare brief summaries of their projects, emphasizing the clinical applications, and that they submit such material to the JOURNAL in addition to the more elaborate reports which they offer for specialized periodicals. In this way we can obtain a leaven of basic science material in our JOURNAL without using out-of-state authors or diluting the practical clinical papers which will always be the backbone of this periodical. To put this plan in operation requires the participation of all New Jersey research workers and the cooperation of all members who know of any research projects underway in our state.

ORIGINAL ARTICLES

OIL EMBOLISM COMPLICATING HYSTEROSALPINGOGRAPHY

NATHAN KARSHMER, M.D., and WILLIAM STEIN, M.D., New Brunswick, N. J.

Accidental injection of iodized oil into the venous plexus of the uterus and uterine vessels is (contrary to common opinion) not an uncommon occurrence. Fortunately, most such instances terminate uneventfully, but it should be remembered that the procedure is not entirely without danger.

Oil embolism was first reported by Pujol[1] and his co-workers in 1929. Additional reports have since appeared in the literature and by now a rather large number of cases have been reported. The frequency of this mishap[2] varies from 0.4 to 1.8 per cent in several large series of hysterosalpingography reported. Whether there have been many fatalities is open to question. A case is recorded by Gajzago[3] in which a woman 60 years of age died after a "hysterosalpingography performed for postmenstrual bleeding". The patient went into shock soon after injection of an iodized oil at a pressure of 80 millimeters of mercury and died 9 hours later. Autopsy revealed oil emboli in the lungs, heart, and kidney. A submucous fibroid was found in the uterus. It was concluded that "this may have been the causative factor in the intravasation of the oil into the venous circulation."

A rather large series of deaths have been reported from air embolism following tubal insufflation.[5] This suggests that hysterosalpingography, on this score alone, is a safer procedure. Oil embolism is not anywhere near as likely to terminate fatally as air embolism.

In 1923 Sicard and Forestier[13] injected iodized oil into the femoral veins of dogs without harmful effect. The oil rapidly reached the pulmonary capillaries and in ten to twelve minutes had disappeared from them. In another experiment 2 to 4 cubic centimeters of the oil were injected very slowly into the cubital veins of human subjects. Serial roentgenograms of chest showed that it reached the pulmonary capillaries in 3 to 4 seconds and remained in the lungs (in the form of droplets) for 6 to 8 minutes after which it suddenly disappeared. Cough without dyspnea was the only untoward symptom noted by the patient.

The ultimate fate of the iodized oil accidentally finding its way into the venous plexus has been described[11] by various authors[12] as follows. The iodine-formed radical is excreted in the form of potassium iodide by the kidneys while the fat-formed radical is saponified and carried away by the circulation. The oil may not show in the lungs due to pulverization and ". . . . therefore is too minute to cast a shadow".[7]

At one time oil embolism was considered an unimportant occurrence but there soon accumulated in the literature a series of cases with serious complications. While not fatal, some did eventuate in pulmonary embolism[6] of varying degrees of severity. Some patients showed pulmonary infarction[7] with coughing up of blood and others secondary embolism to the cerebral vessels.

Various writers[7,8,9] have ascribed a multitude of reasons for oil or fat embolism. The most likely causative factors are:

1. Direct trauma from the cannula.
2. Injection at excessively high pressure.
3. Injection when the endometrium is physiologically deficient, as during menstruation or during the first six to eight days after the cessation of the period.
4. Injection when the endometrium and cervix uteri have recently been subjected to surgical trauma.
5. Unusual permeability of the endometrial tissue[10] has also been mentioned. While this cannot be definitely proved there have been cases where patients have had repeat embolism following the second or third attempt at hysterosalpingography using iodized oil. This would lead one to suspect permeability as a causative factor.

The amount of oil advised for hysterosalpingography is variable, ranging from 6 to 11 cubic centimeters with an average of 8 considered optimal. The most propitious time[2,4,7] for instilling this contrast medium is from 7 to 14 days after the last day of the menstruation

period or after any instrumentation of the cervix or uterus. The ideal way of doing hysterosalpingography is by the fractional method. Two cubic centimeters are injected followed immediately by x-ray exposure and visualization of the film. Repeat injections of 2 cubic centimeters with examination of plates on each occasion are accomplished so that an excessive amount is never introduced. The pressure should never exceed 200 millimeters of mercury. It is well to remember that the mere introduction of the uterine cannula during hysterosalpingography may produce a very slight injury which, though not observed by the naked eye, may be sufficient to allow entrance of iodized oil into the circulation.

Many of these accidental cases occur where one or both tubes have been closed partly or completely. As a result of closure, excessive pressure is used. Several cases have been reported[4] where oil was seen in the venous plexus of the uterine and ovarian veins after only 2 cubic centimeters of material were injected. There are also cases where both tubes were immediately patent with opaque material in the peritoneal cavity at the same moment that oil embolism had already occurred. This would favor the theory[7,10] of an excessive permeability of the endometrial tissue.

In most of the reported cases, the fractional method was not used but rather the old technic of injecting 8 to 10 cubic centimeters in a single dose.[11] This method however is not used much at present. Even where the fractional method is used, an occasional accidental intravasation has occurred as evidenced in the case we are about to report.

Most of these occurrences terminate uneventfully. But the episode may be rather terrifying to one who has never seen such a case. The patient may go into shock, though most do not. The most frequent complaint is a "constricted feeling of the chest" which usually happens immediately after the injection of the iodized oil. Nausea[2] with or without vomiting[7] is very common.[11] The patient may feel chilled.[4] The usual picture is that of a hard coughing spell either during the injection or after the patient descends from the x-ray table. This may be followed immediately or several hours later by coughing and expectoration of a variable amount of bloody sputum. Pulmonary embolism may occur immediately or subsequently and may be accompanied by a moderate amount of pleural effusion.[14] Several days later there may be a mild cerebral reaction Any or all of these manifestations may occur with or without leucocytosis. Most cases run a favorable course[7] terminating in 6 to 8 days in complete resolution of whatever damage may have occurred.[14] Such an episode is however a long-remembered experience for the physician. The best thing to do is to keep the patient at complete rest for several hours. She is then permitted to get up and move about cautiously. Many of these patients (through failure of recognition of what has happened) have been allowed to go home without untoward effect. Such patients should be put to bed immediately and x-ray films taken of the abdomen and chest. The patient is treated expectantly until all signs and symptoms have cleared.

Diagnosis is usually made on the x-ray findings of opaque dye in the uterine and/or ovarian veins as well as visualization of the venous plexus of the uterus. Pulmonary embolization is a less frequent finding unless one is alert and takes chest x-rays soon after the mishap. Here especially one may have clinical signs without significant x-ray evidence. Occasionally clinical signs and symptoms may be severe enough to focus attention to this complication at once. They usually do not become apparent until some hours or days later. X-ray immediately points to the accident that has happened. It is here that the fractional method of injection with radio opaque iodized oil with visualization before further serial injection plays an important role in minimizing the danger of such an unforeseen accident.

CASE REPORT[15]

(No. 40085—Middlesex General Hospital)

A white woman, age 29, was referred to one of us (N.K.) because of inability to become pregnant. There had been a 3 year period of involuntary primary infertility. Several investigative procedures had been done with no demonstrable reasons as to the cause of the infertility. An examination on November 7 was essentially negative. The vaginal examination revealed a nulliparous introitus with intact perineum. The cervix showed a

slight circumoral erosion. The uterus was normal in size, shape and position. There was some slight thickening and tenderness in both adnexal regions.

Hystersalpingography was done in another doctor's office on November 7, by the fractional method. Two cubic centimeters of a proprietary iodized oil were injected, with x-ray exposure and visualization of the plate before a subsequent 2 cubic centimeters were again injected. The right tube was not patent after the injection of 6 cubic centimeters of dye. Since a considerable portion of the oil had "leaked back" into the vagina, five additional cubic centimeters were injected under possibly increased pressure in an attempt either to fill the right tube or to force it open. While the roentgenogram was being taken the patient complained of slight nausea and faintness. The developed x-ray film showed that the dye had entered the uterine plexus and left uterine vein along with a spilling into the peritoneal cavity through the patent left fallopian tube. Here is the report:

"Examination of the genital tract was made by uterosalpingography following the fractional instillation of contrast material into the uterus. The uterus is well demonstrated, is normal in size, although tilted slightly to the right. The cervix is normal in length, but shows a slight degree of irregularity suggesting the presence of an endocervicitis. The opaque material reached the fimbriated end of the left tube without showing evidence of abnormality. The right tube was also demonstrated throughout its length, but showed some dllatation of its outer two-thirds suggesting the presence of a mottled hydrosalpinx.

"A small amount of opaque material is noted in the uterine vein on the left side. Considerable amount of opaque material spills into the pouch of Douglas."

Realization as to what had happened elicited concern and caution. The patient was not permitted to get off the table. An ambulance was called and she was immediately removed to Middlesex General Hospital. She was placed in bed with a minimum of handling.

Her general condition was excellent and her complaints minimal. Careful examination failed to reveal any untoward findings. It was decided to keep her in bed for several days notwithstanding the negative findings.

For the first few days of her hospital stay nothlng unusual happened. Five days after admission, she complained of pain in the lower right chest. She thought this was the result of "a cold". Her temperature rose to 101. Because of thls pulmonary complicatlon an internist* was asked to see her.

She appeared to be acutely ill. There was mild lancinating pain over the lower axillary region of the right chest whlch was definitely associated with respiration and cough and lntensified by either. The cough was frequent and somewhat harassing though non-productive. She felt flushed and feverlsh, was perspiring but not chllled. Her breathlng was more notlceably embarrassed. There were no other complaints. Temperature was 101. Pulse was 100 with regular sinus rhythm. Blood pressure was 125/75. Heart sounds were of good quality with no murmurs. The breath sounds on the right side at the posterior base were diminished on auscultation. There was a suggestion of a pleuritic rub near the axilla. There was also slight increased dullness in this area. Further auscultation of the chest was normal. The abdomen and lower extremities were negative to inspection and palpation. The remainder of the examination was essentially negative. The impression was pleurisy at the right axillary base with a possible pneumonitis. A roentgenogram taken the same day showed irregular infiltration at the right base. The changes there suggested a pneumonitis with the possible consideration of a pulmonary infarct. There was just a little diminished aeration in the first and second left interspaces. The blood count showed leucocytes 16,050, neutrophiles 78 per cent (seg 75 per cent, non seg 3 per cent), lymphocytes 15 per cent, monocytes 7 per cent, Hb 78 per cent, red cells 4,080,000. The sedimentation rate (Westergren) was 68 millimeters in 60 minutes. Electrocardiogram was negative. The acute pneumonitis at the right base and axilla with pleurisy could be the result of oil emboli to the lung subsequent to the hysterosalpingography; or, more remotely, it could be coincidental.

The patient was given penicillin 50,000 units every three hours intramuscularly. Codeine and acetyl salicylic acid were prescribed to control the cough, pain and fever. Because of oil embolization of uterine venous plexus, she was placed on heparin and Dicumarol† prophylactically according to the Mayo procedure.

The patient continued to run a slight fever for five days, the highest point being 101 F. She still complained of the "catching pain" in the right side of the chest. There was definite dullness at the right base with diminished breath sounds. Clinically she felt and appeared better. The temperature then returned to normal.

Mazzini, urinalysis, blood culture and urine tests for fat globules and iodides were all negative.

Subsequent x-rays gave reports as follows: on November 19: "a definite extension of the process in the lower right lung and also a small amount of fluid in the right base;" on November 25: "some diminution of aeration in the right base although there is definite improvement and less evidence of pathology than on previous examination. There appears to be a small amount of fluid present but this is diminished in amount as compared to the previous examination."

Her clinlcal course continued favorable thereafter. The pain in the chest gradually abated. The cough which was always non-productive lessened and finally cleared. She became asymptomatic.

At the time of her discharge from the hospital on December 2, the patient felt perfectly well and had no complaints. Breath sounds were normal on auscultation. The dullness at the base of the right chest was gone. A roentgenogram at dlscharge showed "the previously noted lnflammatory process involving the lower portion of the right lung field has completely cleared, the only residual change

* Dr. Stein, the junior author of this paper.

† Dicumarol is the collective registered trademark of the Wisconsin Alumni Research Foundation for methylene hydroxy coumarin.

being a slight clouding of the posterior portion of the right costophrenic sulcus which probably represents a slight residual pleural thickening."

Just prior to her hospital discharge as the patient became ambulatory the penicillin and Dicumarol† were discontinued and she was prophylactically placed on sulfadiazine for a few days.

The patient was discharged as improved and was returned to her doctor's office for re-examination of her pelvis. This report states:

"Scout film examination of the abdomen reveals a small amount of opaque material in the lesser pelvis and in both flanks. No evidence of opaque material is demonstrable in the blood vessels. The kidney and psoas muscle shadows appear normal. No abnormal intra-abdominal masses are observed."

A recent communication from the patient indicates that she has remained entirely well. She is now pregnant, her last menstrual period having been 18 months after her discharge from the hospital. May we presume that the tubal changes incident to the hysterosalpingogram were instrumental in permitting pregnancy to take place?

SUMMARY

1. Oil embolism resulting from hysterosalpingography is an infrequent accident. The complications are generally not too severe.

2. The causes of this accidental occurrence are reviewed and conditions recommended for avoiding it.

3. The usual findings both clinical and radiologic are discussed. A case report is submitted.

92 Carroll Place
177 Livingston Avenue

BIBLIOGRAPHY

1. Pujol, D.: Cited by Lin, Y. Y., and Tsou, S. H., see footnote 7.
2. Piatt, Arnold D.: Ohio State Medical Journal, 43:821 (1947).
3. Gajzago, E.: Centralblatt fur Gynek, 53:307 (1941).
4. Ingersol, Francis M., and Robbins, Laurence L.: American Journal of Obstetrics and Gynecology, 53:307 (1941).
5. Dibble, M. O.: Lancet, 1:313 (1938).
6. Hemmeler, G.: Schweizer Medizinische Wochenschrift, 68:717 (1898).
7. Lin, Y. Y., and Tsou, S. H.: Chinese Medical Journal, 49:1241 (1935).
8. Williams, E.: British Journal of Radiology, 17:13 (1944).
9. Lunzinger, E.: Munchener Medizinische Wochenschrift, 87:1023 (1940).
10. Witner, E., Cushman, H. P., and Leucutia, T.: American Journal Roentgenology, 23:125 (1930).
11. Coventry, W. A.: American Journal of Obstetrics and Gynecology, 27:912 (1934).
12. Walther, O.: Acta Radiologica, 20:457 (1939).
13. Sicard, J. A., and Forestier, G.: Cited by Ingersol *et al.*, see footnote 4.
14. Roblee, Melvin A., and Moore, Sherwood: Southern Medical Journal, 38:89 (1945).
15. Karshmer, N., and Stein, William: American Journal of Obstetrics and Gynecology, 61:458 (1951).

PRIMARY SPLENIC NEUTROPENIA *

SIDNEY FRIEDENBERG, M.D., and REARDON S. COTTON, JR., M.D., Camden, N. J.

Rare diseases which run a fatal course may be of academic interest only. Those, however, which are curable must be recognized. We are reporting, therefore, a case of a comparatively new diagnostic syndrome, splenic neutropenia, which belongs to the primary hypersplenism group. Many of these cases may be cured by splenectomy.[1]

A 45 year old man was referred to the West Jersey Hospital on July 29, 1950, with a diagnosis of gastro-intestinal malignancy. Onset had been gradual. The patient first sought medical care in February 1950. During the next five months his weight had decreased from 176 to 134 pounds. His complaints were chiefly gastro-intestinal: anorexia, a dull pain in the upper abdomen, non-radiating, intermittent, with no relationship to eating, and not relieved by anti-spasmodic or antacid medications. There had been no vomiting, diarrhea, nor melena. He also complained of paresthesia of the tongue, loss of sense of taste, flatus and constipation.

In 1938 he had pain and swelling of the joints of his hands and feet. This subsided in a few weeks without treatment. Otherwise past history was irrelevant.

Physical examination at the time of admission showed a white male with graying hair, gaunt and cachetic. There were no abnormal physical findings with the exception of slight enlargement of the liver and a small mass in the left upper quadrant of the abdomen. This later enlarged enough to permit palpation of a splenic notch.

Our admitting diagnosis agreed with that of the referring physician. Roentgenologic studies of the gastro-intestinal tract, however, were reported as negative. The only findings of interest were the

*From the medical service of the West Jersey Hospital, Harold K. Eynon, chief of service.

1. Fitzhugh, T., Jr., and Front, J. W.: Delaware State Medical Journal, 22:122 (1950).

hematologic studies which showed a mild normocytic anemia and a leukopenia of 3200 with 9 neutrophils, all mature in type. The blood alkaline phosphatase was 9.7 Bodansky units and the sedimentation rate by the Cutler method was 30 millimeters in one hour.

Differential diagnosis at this time included agranulocytosis, hypersplenism, specifically splenic neutopenia, and agnogenic myeloid metaplasia. Agranulocytosis was discarded as a possibility because of the lack of history of drug ingestion, the normal temperature, the chronicity, the lack of secondary infection, and the presence of an enlarged spleen. The normal bone marrow studies, the epinephrine test, and the absence of a leukemoid blood picture ruled out any unusual form of leukemia.

To confirm the diagnosis of primary splenic neutropenia 0.5 cubic centimeters of epinephrine (1 to 1000) was given subcutaneously and the peripheral blood examined three times at five minute intervals. No polymorphonuclear cell increase was noted. The diagnosis was thus not confirmed by this test.

Splenic puncture-biopsy would have been necessary to clarify the diagnosis. Because the patient was getting weaker every day and as this procedure was not innocuous, surgical consultation was requested. Splenectomy was advised.

The patient was prepared for the surgical procedure by whole blood transfusions, 3500 cubic centimeters being given pre-operatively. Splenectomy was performed by Dr. Athey and Dr. Callahan on September 13, 1950. A small accessory spleen was also found and removed. Convalescence was uneventful.

The day following operation the total white count rose to 6800 with 81 per cent neutrophils. No retrogression has been observed since that day.

He has been followed by Dr. Robert B. Hutcheson, who reports that his patient has regained all lost weight, has no complaints, and is working regularly.

Dr. William Platt's report on the excised spleen follows: the splenic sinusoids were accentuated and the Malpighian bodies atrophic. In many areas there were giant nuclei and in other areas these large cells were multinucleated. The nuclear remnants within these cells resembled degenerating polymorphonuclear leukocytes. There were also occasional erythroblasts, normoblasts, eosinophils, and lymphocytes.

The Armed Forces Institute of Pathology examined these slides, agreed with the findings, and stated that their observations were "consistent with the diagnosis of hypersplenism".

Wiseman and Doan[2] in 1939 were the first to focus attention on a syndrome caused primarily by over-activity of splenic function. They termed this entity hypersplenism.

It has been known for many years that hypersplenic activity may occur in such diseases as the lipid dystrophies, the chronic infections as syphilis, malaria, brucellosis, rheumatoid arthritis (Felty's syndrome), amyloidosis, the collagen diseases, Banti's disease, the leukemias, and Hodgkin's disease. In all these, however, the hypersplenism is secondary.

At present no etiologic factor outside of the spleen is known for the primary hypersplenism group. Included in this grouping are idiopathic thrombocytopenic purpura, splenic neutropenia, splenic panhematopenia, and familial hemolytic anemia.[1] The first three above listed show an increase in splenic lecithinase.[3]

Diagnostic criteria[4] for hypersplenism include a palpable spleen, neutropenia, thrombocytopenia, anemia, or combinations of these. The epinephrine test is useful. The bone marrow findings are usually those of hyperplasia. Both Castle[5] and Doan[2] have pointed out that the diagnosis of hypersplenism is possible only in retrospect *after* splenectomy has caused a reversion to normal in the blood picture.

CONCLUSION

A rare and curable disease, splenic neutropenia, has been apparently cured by splenectomy.

2990 Alabama Road

2. Wiseman, B. K., and Doan, C. A.: Journal of Clinical Investigation, 18:473 (1939).
3. Scheff, G. J., and Awny, A. J.: American Journal of Clinical Pathology, 19:615 (1949).
4. Kracke, R. R., and Riser, William H., Jr.: Journal of the American Medical Association, 141:1132 (1949).
5. Castle, W. B.: *Yearbook of Medicine*, 1950 (Editorial comment). Year Book Publishing Company, Chicago, Page 395 (1951).

DIAGNOSIS OF CANCER OF THE ESOPHAGUS AND STOMACH*

J. Edward Berk, M.D., Philadelphia, Pa.

No problem in clinical gastro-enterology presents a greater challenge than the early diagnosis of cancer of the esophagus and stomach. Remarkable recent strides in the surgical correction of these disorders (especially in esophageal cancer) have placed a premium on the early recognition of these cancers. Continued improvement in operative technic and skill will further reduce surgical mortality. But this alone cannot result in a great increase in the number of lives saved. The principal problem is diagnosis at a stage permitting removal of the growth and its extensions. By the time malignant tumors in these organs give rise to symptoms, the growths have already been present for some time. Thus, observations in patients who have undergone incomplete gastric resection for cancer indicate that an average of 15 months passes before these patients first complain of distress, and for an additional 4 to 6 months the symptoms described by them are vague and nondescript.[7] Recent observations made at the Johns Hopkins Hospital,[5] where the stomachs of more than 6000 persons over the age of 40 have been routinely examined by photofluorography, suggest that *the asymptomatic phase of cancer of the stomach may approach 3 years.* These bits of evidence point up the difficulty, if not the impossibility, of making an "early" diagnosis. They show how improper it is to speak of "early" symptoms. Moreover, they make it clear that time may be taken to carry out diagnostic studies without fear of allowing an operable lesion to develop into one beyond hope of surgical cure.

CANCER OF THE ESOPHAGUS

Clinical Features: The principal symptom of esophageal cancer is interference with swallowing. The first semblance of dysphagia is mild, often unimpressive, and inconstant. Difficulty may be experienced swallowing foods which at other times may be swallowed without trouble. The explanation for this is to be found largely in the fact that the wall of the esophagus is remarkably distensible. This distensibility compensates for the narrowing produced by a growing tumor, so that fixed and progressive dysphagia develops only when the neoplasm finally encircles the wall or involves it to a degree sufficient to interfere significantly with distensibility. In addition, esophagospasm is frequently associated with tumor growth in the esophageal wall. Hence, the administration of atropine and its derivatives or related compounds may relieve some of the difficulty in swallowing and thereby contribute toward a false sense of security regarding the significance of the latter.

Another common symptom is distress or discomfort. This too is often vague and misleading. It consists essentially of two main types: (1) poorly described sense of fullness which tends to radiate to the neck or to the back; (2) steady, boring, aching discomfort situated deep in the chest and commonly noted in the back. The former may result from overdistension of the esophageal wall proximal to the tumor. The latter is probably due to periesophageal inflammation, but when marked and when associated with considerable back pain, may be the result of extension of the growth to the retro-esophageal structures.

The vagueness and misleading character of the symptoms presented early in the development of esophageal cancer is probably responsible for the fact that the average duration of symptoms from onset to hospitalization is approximately six months. Unfortunately, most patients when seen in the hospital present a far advanced lesion with pronounced and persistent dysphagia.

Physical Findings: Early in the development of cancer of the esophagus, physical examination may be entirely non-revealing. Nevertheless, close examination should always be made for an enlarged supraclavicular node, enlargement of the cervical and left axillary nodes, and evidence of hepatic metastasis

* Presented before the Section on Medicine at the Annual Meeting of The Medical Society of New Jersey, Atlantic City, May 14, 1951. Dr. Berk is Assistant Professor of Medicine, Temple University School of Medicine, Philadelphia.

manifested by enlargement, hardening and nodularity of the liver.

Laboratory Findings: As a rule, the ordinary laboratory findings fail to disclose any significant abnormalities in the early stages of cancer of the esophagus.

X-ray Findings: Proper roentgenologic study of the esophagus requires careful fluoroscopy and detailed film study. Both thin and thick mixtures of barium should be employed. It is important to delineate the mucosal pattern. It is equally important to make observations while the patient is completely rotated and to take films with the patient erect and supine. If such detailed study is carried out, and the examination repeated if equivocal or questionable, 90 per cent or even more of the cases of cancer may be recognized.

Esophagoscopy: Direct inspection of the esophagus by endoscopy provides a means of making a positive diagnosis of cancer, both by directly visualizing the tumor and by means of biopsy. The recent perfection of the flexible esophagoscope should make wider use of this important endoscopic instrument possible.

Esophagoscopy may fail to disclose or confirm the presence of cancer because of inability to visualize the lesion; misinterpretation of what is seen; inability to obtain a biopsy; omission of biopsy because of the risk involved in a particular case; and because of negative biopsy due either to too shallow a bite or inclusion in the specimen only of inflammatory tissue associated with the neoplasm.

Cytologic Examination: Cytologic examination of tissue obtained from the esophagus is especially useful when esophagoscopy and biopsy cannot be carried out, or when these result in negative findings.

Material suitable for cytologic examination may be obtained in one of several ways. During esophagoscopy material may be obtained by suction or by direct swab. The latter is especially useful in low-lying lesions, particularly those arising in the cardia which may not be visible. Without esophagoscopy, material may be obtained by swallowing a string, to the end of which has been attached a simple piece of gauze or a piece of Gelfoam,** or along which has been attached several pieces of Gelfoam;[1] by swallowing a tube over the surface of which has been wrapped a string to which in turn has been attached a series of pieces of Gelfoam;[1] by constant aspiration through a tube while the patient swallows saline, the tube being so placed that the tip lies just below the junction of the esophagus and stomach;[2] or by aspiration through a double lumen tube arranged so that the junction of the esophagus and cardia may be occluded by a balloon attached to one lumen.[4]

The great pitfall in cytologic examination is the false negative result. A negative cytologic study does *not* exclude the diagnosis of esophageal cancer. False positive readings represent another drawback. These, however, have the merit of placing the clinician on guard and, unlike false negative findings, do not foster unwarranted complacency.

**Gelfoam is the Upjohn Company's trade name for an absorbable surgical sponge prepared from a non-antigenic gelatin solution.

CANCER OF THE STOMACH

Clinical Features: The onset of symptoms in cancer of the stomach is commonly insidious. Early symptoms are notoriously vague, minimal and obscure. The treacherous character and beguiling nature of the *first* symptoms may be pointedly and dramatically illustrated by the fact that among those victims of gastric cancer who failed to recognize the disease in themselves early enough to obtain possible surgical cure, were such world-wide authorities on the subject as von Mikulicz, W. J. Mayo, D. P. D. Wilkie, Martin Kirschner and R. D. Carman. In more than half the cases, the lesion has already extended beyond the confines of the stomach when first symptoms appear.

There is no single characteristic onset or symptom complex in the earliest expressive stage of gastric cancer. *Any symptom referable to the upper abdomen may be a symptom of cancer of the stomach.* This applies to such symptoms as loss of the usual satisfaction following a pleasant meal, slight epigastric discomfort, fullness after a heavy meal, minimal loss in appetite, nausea, early satiety, regurgitation of small amounts of food, especially after a heavy meal, vague substernal distress, and unexplained weight loss. Occasion-

ally the first symptoms presented are those due to metastasis. An important feature in many cases is a symptom complex resembling peptic ulcer. Approximately one-third of all patients with gastric cancer may present symptoms of this type. Not only is this important to bear in mind, but it is equally important to remember that 80 per cent of these patients respond initially to the medical regimen ordinarily used for peptic ulcer.

It is not sufficiently appreciated that symptoms in patients with gastric cancer may exist for comparatively long periods. From 7 to 15 per cent of patients with gastric cancer describe symptoms ranging in duration from two to five years.[3] In these cases it has been observed that an important feature is an abrupt change in symptoms. This may be manifested by a sudden increase in pain or distress, loss of effective relief previously obtained from food or medications, diminution in appetite, or unaccountable loss of weight.

Physical Findings: These vary with the duration of the disease and the character of the lesion. A palpable epigastric mass is fairly common (45 per cent of 1110 patients studied at the Memorial Hospital[3]). The point to be emphasized here is that the presence of such a mass does not spell inoperability. Indeed, in the Memorial Hospital cases[3] the incidence of a palpable abdominal mass in patients with resectable lesions was not significantly less than it was in those with inoperable tumors. Moreover, Steiner[8] and his associates at the University of Chicago, noted that 30 per cent of a group of patients who had survived gastric resection for cancer for five years or more, had presented a palpable mass prior to resection.

During the examination of patients suspected of gastric cancer, close attention should be paid to the supraclavicular area for an enlarged node or nodes, and to the anterior rectal wall immediately above the prostate in the male and behind the uterus in the female where metastatic growth characteristically produces a shelf-like formation.

Laboratory Findings: The persistent presence of *occult blood in the stools* with the patient on a meat-free diet and without an obvious source for bleeding, is of extreme importance. *Anemia* is commonplace but may be very slight or entirely absent during the early stages of gastric cancer.

Gastric analysis is a highly useful means of study. Not only may it provide evidence of achlorhydria, but it may also show the presence of gross bleeding or of pyloric obstruction with retention. Achlorhydria properly deserves to be stressed, since complete absence of free acid or pronounced hypoacidity is present in from two-thirds to three fourths of all cases.[3] Nevertheless, in emphasizing this feature we tend to overlook the sizable number of cases who have normal or even hypernormal amounts of free gastric acid. *The presence of free hydrochloric acid does not in itself rule out gastric cancer.*

Gastric analysis serves an additional useful function by providing material for cytologic study. When satisfactory smears are secured, positive evidence of gastric cancer may be obtained in from one-half to two-thirds of all cases. Here again, negative results do *not* exclude cancer. Cytologic study of gastric aspirates has been technically hampered by contamination with cells from other structures and disintegration of tumor cells by the digestive action of the gastric juice. To help overcome these difficulties, a group of investigators[6] at the New York Hospital have designed an abrasive balloon which is attached to one lumen of a double-lumen tube. The balloon is an ordinary one through which there has been threaded at numerous areas a series of silk braids. These have then been cut so that the ends protrude from the surface. After the tube has been swallowed and material aspirated, the balloon is distended and the tube is then moved upward and downward so that the abrasive surface of the balloon comes in contact with the gastric mucosa. This is done several times. Material which may have become attached to the braids is directly removed and the balloon is then immersed in saline and the washing prepared in the usual fashion for cytologic study.

X-ray Findings: Roentgenologic study of the stomach is the most useful single method for the diagnosis of gastric cancer. When all

maneuvers are used, and the examination repeated in equivocal or negative cases with suggestive symptoms, a positive diagnosis may be expected in 90 per cent or more of all cases. The differentiation of benign from malignant ulcer, and of malignant infiltration from large non-neoplastic rugal folds, is many times difficult if not impossible. Another vexing problem, often incapable of solution, is determination of the precise nature of a lesion producing constriction of the distal stomach.

Mass roentgenologic surveys are being considered as one means of arriving at an early recognition of gastric cancer. The studies thus far reported[3] would indicate that gastric cancer may be recognized early in from 0.2 to 0.5 per cent of persons without gastric complaints. This approach, however, creates many practical problems and does not appear to be economically feasible. The use of photofluorographic methods affords a solution to some of the problems involved in applying such surveys on a wide scale, but is not without imperfections. Of 6000 cases studied to date at the Johns Hopkins Hospital by this technic,[5] 8.3 per cent of the examinations proved to be unsatisfactory; 1.3 per cent were normal on the miniature films but abnormal on the regular films; and 24 per cent were abnormal on the miniature films but normal on the regular films.

On the other hand, mass roentgenologic surveys may yield a worth-while return and prove economically feasible if applied to certain selected groups. These include: (1) patients with pernicious anemia, in whom the incidence of gastric cancer is approximately three times that in the population at large in the same age groups; (2) patients with achlorhydria, who appear to be more prone to develop gastric cancer; (3) patients with known gastric atrophy, who similarly seem more liable to develop cancer; (4) patients with gastric polyps, many of which may undergo malignant change; and (5) asymptomatic relatives of patients with proved gastric cancer.

Gastroscopy—The gastroscope in the diagnosis of gastric cancer is complementary to roentgenologic examination and not competitive with it. When both methods are used by skillful and well-trained persons, the incidence of positive pre-operative diagnosis of gastric cancer may be raised almost 10 per cent.[3]

The recent perfection of the operating gastroscope represents a distinct advance. Through the use of this instrument, not only may lesions be directly visualized, but a suitable biopsy may be taken without inordinate risk.

Among the limitations of gastroscopy may be mentioned: (1) inability to introduce the instrument because of obstruction at the cardia, although this in itself affords some diagnostic information; (2) non-visualization due to the situation of the tumor in one of the notorious blind areas of the stomach; (3) misinterpretation of what is seen, such as mistaking malignant for benign ulceration, mistaking infiltrative lesions for mucosal hypertrophy, and erroneously concluding that the proximal end of a narrowed distal lesion is the normal pylorus or pyloric canal.

SUMMARY AND CONCLUSIONS

1. The asymptomatic period in esophageal and gastric cancer is much longer than has been supposed. There is reasonable evidence indicating that gastric lesions, at least, are probably one and a half years old or even older when symptoms first appear.

2. The initial symptoms are minimal, vague and nondescript. Therefore, it is important to apply all available diagnostic measures in every case with symptoms pointing to the esophagus or stomach. It is important, too, that these studies be repeated if they are negative in the face of suggestive symptoms or signs. Indeed, if symptoms persist and all ancillary studies are negative, surgical exploration would appear to be entirely justified.

3. If physicians and patients alike maintain a high index of suspicion, and if all available diagnostic procedures are utilized, many more cases will undoubtedly be uncovered while still in a stage permitting curative operation.

255 South 17th Street

References will appear in author's reprints.

THE X-RAY DEPARTMENT IN CIVILIAN CATASTROPHES *

Edward F. Klein, M.D., and Benjamin Copleman, M.D., Perth Amboy, N. J.

We are all talking about preparation for civil defense these days. Unfortunately—or perhaps fortunately—we have little opportunity to test out our procedures. This is a report of the way in which a small x-ray department geared itself to meet a heavy load thrown on it because of a large scale train wreck that poured 221 patients into our hospital in a single evening. The usefulness of this experience as a trial run is obvious.

The role of the x-ray department may be minor despite the magnitude of the disaster. On May 19, 1950, there was an explosion of munitions-laden lighters in the harbor of South Amboy, N. J. There were many casualties. The injured included ship and dock workers, who received the full impact of the explosion, and civilians on shore who suffered as a result of flying glass, debris, falling plaster, et cetera. The condition of the small number of critically injured persons did not warrant transfer for x-ray. Not more than a dozen radiographic examinations were made at the Perth Amboy General and South Amboy Memorial Hospitals on that evening.

More extensive experience resulted from the train wreck at Woodbridge, N. J., on February 6, 1951. Two hundred and twenty-one patients were treated in the Perth Amboy Hospital on the night of the accident; of these, ninety-three were admitted to hospital beds. Within an hour after admission of the first patient, the x-ray department was over-taxed. A priority system for x-ray examination was installed. It soon became evident that there were three classes of patients: (1) those who could be discharged if their injuries (as determined by x-ray) did not require hospitalization; (2) patients with definite but not emergent or critical injuries, and (3) the critically injured.

All patients in classes one and three were x-rayed first according to the condition of the patient and the emergent nature of the treatment which might be required. Patients in class two were x-rayed after examination of class one and three patients had been completed.

With abundant volunteer help pouring into the hospital, no difficulty was encountered in maintaining the efficiency of the x-ray department. A typist in the x-ray office entered the name, age, radiograph number, and examination to be done in the ledger and typed the photographic-marker slip for each patient coming to the department. Several teams of litter bearers or stretcher carriers were organized to transport patients. Additional two-man teams were used in the radiographic room to support the patients, hold cassettes, et cetera. These teams were changed frequently to prevent excessive exposure to radiation. One technician made the exposures and the other processed the films. As soon as the projections were made, the patients were moved into the corridor to await reading of the wet films. Usually, two or more examinations were processed at a time so that there was very little congestion in the darkroom. As soon as the wet films were seen, a pencilled report was made on the back of a large paper tag, and the patient was returned to his place of origin in the hospital. The reports were of necessity brief, such as "pelvis—not fractured; right forearm — both bones fractured, not displaced".

During the next day, the dry films of the night before were formally interpreted and typed. As the work continued, pencilled wet-film reports were made as soon as the films were viewed. Typed reports were rendered as soon as the films were dry. By Thursday noon, 36 hours after the accident, the x-ray department was back on routine, in that other hospital patients (not involved in the accident) were accepted for examination. Two hundred and thirty-four examinations had been done on one hundred and twenty-four patients in one radiographic room, with the film processing being done in one small darkroom.

* From the x-ray department of the Perth Amboy General Hospital.

CONCLUSION

The x-ray department may become an unavoidable bottleneck in the disposition and treatment of patients following civilian catastrophes. It was our experience that certain procedure expedited the work and allowed the clinical services to dispose of, or treat, the patients without undue delay. This experience suggests that:

1. A priority system must be established by experienced clinicians to insure that those patients requiring immediate x-ray examinations should be examined first.

2. Volunteer personnel must be adequate to handle large patient loads. There must be enough secretarial help to register the patient for identification of records and films. Enough teams should be organized to handle the litters and stretchers and to assist the technician in the radiographic room. The teams should be changed frequently to avoid excessive exposure to radiation.

3. The technician must be efficient and experienced. The worker in the darkroom must be able to insure a steady flow of films through the dryers to the reading room. The use of fresh processing solutions is very helpful. An adequate supply of films, cassettes, film hangers, and processing solutions is a necessity.

4. If the load is large enough to necessitate continuous night work, more teams of technicians and at least two radiologists are necessary.

5. A large paper tag is suggested for use as an emergency identification form. One side may be used for requests and the other for the emergency reports.

6. The patient is returned to his site of origin in the hospital as soon as the wet-film reports are made.

In our experience, fulfilling these requirements resulted in a thorough and rapid handling of a large number of injured patients in a catastrophe involving several hundred people. In view of the great efforts now being made to prepare for civil defense, it might be well for each radiologist responsible for a hospital department to survey his own situation and be prepared for any occasion which may arise.

280 Hobart Street

ANTIHISTAMINIC DRUGS AND ALLERGY

Speaking at the 1951 congress of the American College of Allergists, Dr. B. Ratner of Columbia University, pointed out that while the antihistaminic drugs have proved valuable in allergic pruritus, edema, and rhinitis, they have been ineffective in asthma and in the more serious forms of skin allergy. He emphasized that these drugs are only palliative in action, and that rational allergy treatment still depends on the identification, elimination, or desensitization of specific allergens.

ONE HUNDRED YEARS AGO

"Unfortunately throughout the length and breadth of New Jersey are many medical gentlemen who passed through the regular periods of study, submitted to an examination from the legal censors, and who for a period were orthodox practitioners; then from insufficient success or a desire for novelty, they abandoned their first love and became homeopathists. They are, generally speaking, classical men, moral, virtuous citizens who, with the exception of having adopted an absurd mode of treating disease, are still deserving the right hand of fellowship. How far are we justified in making them therefore an exception to our outcasting of nostrum venders, Thomsonians,* hydropathists and empirics?* We recommend a line of distinction to be drawn in our intercourse with homoeopathists; but in the case of all other practitioners, your committee cannot too strongly inculcate perfect non-intercourse; as for these illegal practitioners, their name is legion and, like scrofulous tubercles of the lungs, they destroy and corrode the vitality of the whole system. In tolerating homeopathists, however, no law is violated and no enactment vitiated, provided these homeopathists had anteriorly been allopathists." (Report of the Standing Committee; 1849 *Transactions of The Medical Society of New Jersey*, page 429).

* Thomsonians were adherents of a thesis propounded in 1840 by a Dr. Samuel Thomson to the effect that only those medicines which came from plants were useful. An empiricist was a practitioner whose knowledge was based solely on his experience and who had had no formal study.—Editor.

EOSINOPENIA IN STATUS ASTHMATICUS *

A REPORT OF TWO CASES

PAUL B. JENNINGS, M.D., Highland Park, N. J.

Eosinophilia has long been known to be associated with allergy, appearing in high concentrations in both the peripheral blood and at the site of the allergic reaction. The possibility of the eosinophilic granules being the precursors of histamine[1] and the formation of Charcot-Leyden crystals from the cells themselves[2,3] has clarified somewhat the role of the eosinophil in allergy. Dalton[4] postulates that as a result of the antigen-antibody reaction, eosinophilia occurs with the local release of histamine which in turn produces the symptoms of the allergic reaction. While the exact function of the eosinophil in the body economy has long remained a mystery, it has recently been shown that the eosinophil level could be used as an indicator of adrenal cortical function. This has resulted in more refined staining technics and more accurate methods for counting eosinophils.[5]

Known for many years has been the fact that eosinopenia appears under conditions of stress. This has been especially noted in the early stages of acute infections, at which time eosinophils are rarely found in the peripheral blood. Their appearance generally indicates the beginning of recovery and presages an increasingly good prognosis.[6]

In 1910 Bertelli[7] had noted that epinephrine caused an eosinopenia, and Schwarz[8] in 1914 postulated an endocrine regulation of the eosinophil. He proposed that diminished function of the adrenals or thyroid produced an increase in eosinophils, and hyperactivity of these same glands, a decrease.

In recent years Selye[9] has demonstrated that eosinopenia constitutes a characteristic part of the alarm reaction.[10] Since Thorn's proof[11] of the theory in humans[12] that this fall in eosinophils is mediated through the endocrine system,[13] the literature has become abundant with references to the eosinopenia occurring after a variety of stresses.

Epinephrine,[14,15,16] surgery,[17,18,19,20] myocardial infarction,[18] congestive heart failure,[21] electric shock,[22] insulin,[14,23] labor,[24] eclampsia,[24] emotions[16] and other modes of stress have been demonstrated to produce a fall in the level of circulating eosinophils in man. All undoubtedly have a common mechanism of action by way of the hypothalamic-pituitary-adrenocortical system.[11,13,25,26] The resulting eosinopenia is considered to be a direct result of the liberation of 11, 17-oxysteroids into the blood by the latter gland.[11]

In allergic states, the eosinopenic response to epinephrine is sometimes masked by the rapid rate of production of these cells in the marrow and consequent eosinophilia.[25,27] On the other hand, treatment of allergic patients, including asthmatics, with ACTH is usually accompanied by a decrease in the level of circulating eosinophils.[28,29,30]

Since patients suffering from severe status asthmaticus are undergoing marked stress, it was thought that it would be interesting to make observations on the eosinophil level at that time.

Previous authors have described an eosinophilia in a fatal case of asthma,[31] although there is no indication as to whether the lone eosinophil count was done at the time the patient was dying. Winer *et al.*[32] report both eosinophilia and eosinopenia in their cases, although again the time relationship is not clear and only single observations were made. Craige[33] found a similar discrepancy in his fatal cases. Although present in a few, eosinophilia was apparently *not* a prominent feature in the series of asthmatics dying suddenly, as reported by Walton *et al.*[34] In all of these reports, only a single determination was made; the time in relation to death or the peak of severity of the attack is not clear; and the count was done by the peripheral smear method.

There was a definite predominance of eosinophils in the lumen and walls of the bronchioles upon postmortem examination described by all these authors.

Two cases of asthma with known eosinophilia were followed during the stress of severe status asthmaticus by eosinophil counts. The method of counting and staining used was that as outlined by Pilot.[5]

CASE ONE

A 29-year old white male stated that he had been an asthmatic for as long as he was able to re-

* From the Atlantic City (N. J.) Hospital.

member. Until January 1951, the attacks were not severe. Since that time he had had increasing difficulty in gaining relief from the episodes, which had become more frequent and more severe. When the usual amounts of aminophyllin and epinephrine failed to relieve a severe attack, he was admitted to the Atlantic City (N. J.) Hospital for treatment with cortisone. The pertinent physical findings on admission were cyanosis, dyspnea, marked wheezing and tachycardia. Upon daily treatment with 100 milligrams of cortisone the patient made a rapid and uneventful recovery and was discharged on the fourth hospital day on an oral maintenance dose of 50 milligrams of cortisone twice daily. He remained relatively symptom free on this drug for three weeks. Then there was a progressive return of symptoms, and he was readmitted in March 1951, because of a severe intractable attack of cyanosis, dyspnea and wheezing.

On the day of admission the peripheral smear showed 16 per cent eosinophils for a total count of 2120 per cubic millimeter by this indirect method. The following day a total eosinophil count done by the direct method was 416 per cubic millimeter.

On the fourth hospital day a near fatal bout of status asthmaticus occurred in spite of continued cortisone therapy (intramuscular). The patient developed acute respiratory obstruction, stopped breathing and was resuscitated only after tracheal intubation and artificial respiration. At the point of maximum stress when the patient was moribund and comatose the eosinophil count had risen to 1154. The count then fell to zero after twelve hours (Table 1), at which point the patient had recovered from the acute episode.

The patient was then placed on ACTH and despite daily doses of 100 milligrams his eosinophil count remained elevated (Table 1). He made an uneventful clinical recovery and was discharged. He has continued to have asthmatic attacks since discharge and has returned to the hospital on several occasions.

CASE TWO

This 31-year old female had had asthma for many years. Three pregnancies aggravated her symptoms. She required general anesthesia to terminate an attack of status asthmaticus the last time she was in labor. She had a long allergic history and was a positive skin reactor to many allergens.

She was admitted to the hospital in November 1950, because of an acute, severe bout of asthma which readily responded to therapy with oxygen and helium, aminophyllin and epinephrine. Her eosinophil count as determined on a routine blood count revealed 13 per cent eosinophils for an absolute count of 1079 per cubic millimeter. She was discharged after three days in the hospital, only to be readmitted four weeks later in severe status asthmaticus in a near-moribund state. She was treated with the agents mentioned above but responded much more slowly. On the second hospital day while still very ill, a total eosinophil count was done by the direct method and was found to be 11.1 per cubic millimeter.

Upon discharge after a week, at which point her chest had become clear, her eosinophil count had risen to 310 per cubic millimeter (Table 2).

TABLE 1

Serial Eosinophil Counts During a Near Fatal Attack of Status Asthmaticus

Day	Eos./cu.mm.	Condition of Patient
1	416	Fair
2	1154	Moribund
2	44	In oxygen—better
3	0	Awake—less dyspnea
3	189	Improving
4	250	Good
5	333	Good
6	257	Good
7	228	Good
11	1931	Chest clear

One hundred milligrams of ACTH daily on the 4th, 5th and 6th days; by the 7th day this was tapered to 25 milligrams every other day.

TABLE 2

Eosinopenia During Status Asthmaticus

Date	Eos./cu.mm.	Condition of Patient
11/2/50	1079*	Moderate asthma
12/1/50	11.1	Status asthmaticus —nearly moribund
12/5/50	310	Chest clear

* Peripheral Smear.

Both patients demonstrated a marked eosinopenia (11 and 0 cells respectively) during the bout of severe status asthmaticus, falling from previously eosinophilic levels. This development was undoubtedly a direct result of adreno-corticoid overproduction secondary to the stress of anoxia. Squier[35] described similar changes in asthma. The first patient had been receiving cortisone for some time, but still ran an eosinophilia. Both patients had been receiving epinephrine over long periods of time without visible eosinopenic effect. Even the 100 milligram daily dose of ACTH given the first patient was insufficient to cause an eosinopenia. Nevertheless, when this patient was subjected to severe stress and impending death, the healthy pituitary and adrenal apparently discharged hormones far in excess of the "therapeutic doses" of ACTH, cortisone, and epinephrine that are ordinarily used.

The resulting eosinopenia took place in spite of the usual increased production of eosinophils by the marrow. In the first case in which serial counts were done, there was an initial rise in eosinophils occurring at the peak of stress. This initial rise was described by Forsham *et al.*[36] following administration of ACTH, and according to White *et al.*[15] is more

marked in subjects with a history of allergy. If this patient had died at this point, as he almost did, he, too, would have died with an eosinophilia.[31] This high count is explained by the delayed eosinopenic response which usually occurs upon stimulation of the adrenal cortex.[36,37] Actually, he had recovered considerably by the time his eosinophils had fallen to a low level. Thus we see the following sequence of events occurring after severe stress in an asthmatic. First there is a rise in eosinophils in the peripheral blood. This is followed in a few hours by the disappearance of these cells from the blood. At the same time, they appear in large numbers in the lumen and walls of the bronchioles.

One might speculate and generalize from this circumstantial evidence that following stress of any kind there is an output of ACTH and adrenocorticoids. Eosinophils then appear in large numbers from the bone marrow and travel by the blood stream to the shock organ. This would explain the initial rise followed by a fall in the eosinophil level. Other investigative work[35] seems to bear this out. The exact function of this cell once it arrives at the "shock organ" remains obscure, however, although its tie-up with the antigen-antibody reaction and histamine has been mentioned previously.[2]

SUMMARY

1. Two cases of bronchial asthma with a known eosinophilia were observed during a severe attack of status asthmaticus.

2. Both patients showed an eosinopenia during this stress followed by a return to high levels. These findings were used as evidence to support the hypothesis that during stress eosinophils are mobilized from the bone marrow and collect at the shock organ.

3. Severe stress produces an eosinopenia far beyond that observed following usual "therapeutic doses" of the pituitary and adrenal hormones.

ACKNOWLEDGMENTS: I am grateful to Dr. Milton Ackerman, pathologist at the Atlantic City Hospital, for his constant cooperation and help during the course of this work. I am indebted to Miss Evelyn Kress, who did most of the eosinophil counts, and to Miss Clara-Louise Kuehn, who edited and typed the manuscript. I also express thanks to Dr. Hans Selye, Director, of the Institute of Experimental Medicine, University of Montreal, Canada, for reading this paper and offering many helpful suggestions.

A bibliography of 37 citations appears in the author's reprints.

28 North Seventh Avenue

18th CENTURY MEDICINE IN NEW JERSEY

FROM A DISSERTATION BY DR. WILLIAM BURNET* AT THE MEETING OF THE MEDICAL SOCIETY OF NEW JERSEY AT BURLINGTON ON NOV. 6, 1787:

"It is very possible for me to be called this year to hundreds of patients with a violent pleuritic fever. I bleed them repeatedly, and they obtain great relief. From thence one would suppose that bleeding is a sovereign if not infallible remedy in all pleuritic fevers. Yet it may be that the very next patient with a pleurisy would die if bled in this manner. To a common observer, these facts seem opposed to one another. He is afraid to bleed in pleurisy and afraid to neglect to bleed. So with any common observer. But the regular physician is at no loss at all and can reconcile the seeming contradiction. Thus, an observer may have heard that the bark is a specific in fevers. The observer then gives the bark in all fevers without reserve, and by this treatment many patients die. This is a mystery to him, but a regular well-bred physician could have foretold the event. The mistake is easily accounted for. The common observer did not know the difference between inflammation and putrefaction. He was unacquainted with the causes and effects of spasms. He did not understand the qualities of the blood and juices. This shows the great importance of laying well the groundwork of medical education before we think of entering practice." (Pages 58-59 of the 1787 *Transactions.)*

* Dr. Burnet was President of The Medical Society of New Jersey in 1767.

TRIMETON MALEATE† IN ALLERGIC EYE MANIFESTATIONS*

EDMUND KAHAN, M.D., and GEORGE Z. CARTER, M. D., New York, N. Y.

Allergic optical symptoms of sensitivity to locally applied drugs (and also to other systemic allergies) are well known to the ophthalmologist. These symptoms may include conjunctival hyperemia with an edematous appearance, lacrimation or even a mucoid or mucopurulent discharge. In addition, and particularly in allergies due to local drug application, there may be swelling of the lids and periorbital tissue. The patient will complain of a burning, itching sensation of the eye. There may be photophobia or blurred vision (due to the discharge).

In this clinic* we studied the effect of an antihistaminic on ocular allergies in adult white patients. This is a preliminary report on the use of prophen-pyridamine maleate (Trimeton Maleate†). This medication[1] was available as an ophthalmic solution containing 0.5 per cent of the drug and as an ointment of 0.25 per cent strength.

Many more patients were treated with Trimeton Maleate† Ophthalmic solution or ointment than are reported in this paper. Only those patients who returned for follow-up observations are considered. The others visited the clinic, were given the medication, but never returned.

The ophthalmic solution was used in the following types of cases which are summarized:

1. Allergic conjunctivitis due to sensitivity to drugs locally applied.
   a. atropine
   b. pilocarpine
   c. others.
2. Allergic conjunctivitis due to unknown allergen; the diagnosis was based on typical symptomatology such as tearing, photophobia or itching, plus the general clinical picture.
3. Bacterial and viral conjunctivitis.
4. Chronic conditions of conjunctival congestion most of which had resisted the different types of common therapy with decongestants and antihistaminics.
5. Epiphora
   a. not associated with any definite pathology of the naso-lacrimal passages;
   b. associated with inflammatory conditions of the naso-lacrimal system.
6. Chemical burns of conjunctiva and cornea.

Results are tabulated as follows:

Condition	1a	1b	1c	2	3	4	5a	5b	6	
Clinical and Symptomatic Improvement	2	4	3	7	5	6	3	2	3	35
Unimproved				2		3				5
Deteriorated						1				1
Total	2	4	3	9	5	10	3	2	3	41

In these cases, Trimeton† was used in the form of instillations from three times a day up to every two hours during the waking hours. In pilocarpine sensitivity, the miotic was not discontinued, but Trimeton† was instilled 15 minutes after the use of pilocarpine. In atropine sensitivity, the mydriatic was changed to scopolamine in one case, in the other one discontinued.

The most striking change in most cases was a blanching of the conjunctiva occurring about one to two minutes after the instillation of Trimeton†. Biomicroscopic examination showed constriction of superficial conjunctival vessels and limbal arcades of prolonged duration.

Sensitivity of the cornea seemed to be somewhat decreased in a few cases. However, it was not marked enough to alleviate the pain in the three cases of corneal burns, and never adequate for the removal of foreign bodies—even if superficially situated.

The drug had no significant influence on the size of the pupil. No rise in intraocular pressure occurred in glaucomatous eyes. In four patients with normal intraocular tension a rise of two to five millimeters of mercury (Schiotz) was noticed, this still being within the normal range of error. Tension returned to normal within 30 to 90 minutes; no untowards symptoms were noticed.

†Trimeton is the Schering Corporation's trade-name for their brand of prophen-pyridamine.

*From the Department of Ophthalmology, The Newark Eye and Ear Infirmary, Newark, New Jersey.

1. Generously supplied by the Schering Corporation, Bloomfield, New Jersey.

Trimeton† ointment was applied to the skin of the eyelids and adjacent areas in five cases in which allergic eye and skin lesions were present. In one case (atropine sensitivity) no benefit could be noticed. In one case (sensitivity to sulfa preparation) result was doubtful. Both patients complained of severe burning after the application of Trimeton†. In the three remaining cases (two atropine, one pilocarpine sensitivity) rapid and complete clearing of all allergic lesions occurred.

Subconjunctivally, Trimeton† was administered only once, in a case of chronic congestive conjunctivitis. Subjective symptoms were alleviated within a week, then recurred. After that, because of severe pain following injection, treatment was discontinued.

CASE ONE

A female with chronic primary glaucoma with frequent exacerbations, underwent several surgical procedures. After the first and second operations, severe chemosis and swelling of the conjunctiva and lids and allergic dermatitis of cheeks did not permit an adequate examination of the eyes for two days. The identical condition would recur immediately after the administration of atropine, pilocarpine and sulfa drugs. Tripelennamine hydrochloride[2] was used systemically and locally without benefit. Trimeton Maleate† drops and ointment cleared the condition within 24 hours.

CASE TWO

A male complained of burning of the eyes, tired feeling, and itching after staying for some time in smoke filled rooms. Definite conjunctival congestion was apparent every time. Instillation of Trimeton† drops produced blanching within three minutes and symptomatic relief within about five minutes. Prophylactic use before exposure to smoke (e. g. parties) prevented recurrence of unpleasant reactions.

CASE THREE

A female developed severe allergy of the conjunctiva and lids within six hours from instillation of butyn for tonometry. Trimeton maleate† eye drops and ointment were used. After 35 hours all signs and symptoms subsided completely.

CASE FOUR

A female had chronic primary glaucoma. Following bilateral iridectomy, this was under control with miotics for many years. Recently she developed pilocarpine and pontocaine sensitivity. Trimeton† added to continued pilocarpine therapy brought about disappearance of allergic symptoms.

CASE FIVE

A male had chronic blepharoconjunctivitis of undetermined etiology. It was treated with sulfa preparations, sodium propionate, antibiotics, ultraviolet radiation, Dial[3] soap and antihistamines—all without result. Trimeton† brought about dramatic improvement within two days and has persisted since.

SUMMARY

1. A preliminary report on an ophthalmic antihistamine is presented.

2. Subjective and objective improvements are described. Although the small number of cases permits no definite conclusion, the fact stands out that this drug has given definite improvement in allergy of known or unknown etiology. It is a helpful adjunct in the treatment of diseases which necessitate prolonged application of drugs causing allergic response.

3. Trimeton Maleate Ophthalmic Solution† affords relief from the symptoms of ocular drug allergies but does not inhibit the therapeutic action of the indicated drug.

200 West 93 Street
30 East 60 Street

HOUSE DUST AND ALLERGY

The importance of house dust in the pathogenesis of allergic diseases was emphasized by Dr. A. N. Unger, at the 1951 congress of the American College of Allergists. He cited the role of house dust both as an allergen, and as a carrier and reservoir for bacteria and fungi, and urged further efforts to eliminate it from the environment of allergic patients.

NEW ADDRESS FOR OB.-GYN. BOARD

The American Board of Obstetrics and Gynecology has moved its secretariat from Pittsburgh to Cleveland. The present and correct address is Robert L. Faulkner, M.D., Secretary, American Board of Ob. and Gyn., 2105 Adelbert Road, Cleveland 6, Ohio.

2. In the form of "Pyribenzamine", a Ciba Pharmaceutical Product.
3. Dial is the Ciba Pharmaceutical Products trade name for their brand of di-allyl barbituric acid.

AVITAMINOSIS AND RESPIRATORY MONILIASIS

RALPH A. HALL, M.D., Westfield, N. J.

This article presents six cases of mild infections of the upper respiratory tract and lungs by Monilia albicans. The infections were verified by culture. The literature on the subject reports that potassium iodide is more or less "specific" for this disease. However, this therapy is not without hazard because of sensitivities and other factors. I have approached the problem in terms of its being associated with systemic deficiency. Results have been satisfactory.

Case 1. A woman, age 32, complained of cough, more severe at night, occasionally with vomiting. Weight loss was 14 pounds in one week. She had an afternoon rise in temperature to 100.6 orally. Physical examination was negative except for a chest x-ray which revealed a right interlobar abscess. She was treated for one week with penicillin without improvement. A needle into the abscess revealed clear, straw colored fluid from which a pure culture of Monilia albicans was grown. At this time the patient began to complain of losing hair by the handful. Without knowing specific therapy for this complaint, vitamin B and liver injections were given twice a week. Clinical response was prompt. The cough subsided markedly and within one week the patient was well enough to be up and around the house. In one month a repeat x-ray revealed only a widened line in the interlobar fissure. Within 60 days, the chest x-ray was normal.

Case 2. A 32 year old male complained of severe sore throat for five years. Numerous treatments, including tonsillectomy, failed to help. Cultures from the throat revealed a heavy growth of Monilia albicans along with Staphylococcus albus, Proteus vulgaris, Pyocyaneas and Pneumococcus. History revealed six to nine alcoholic beverages a day. The patient always felt better when "slightly" under the influence of alcohol. I administered vitamin B and liver injections twice a week starting on January 5. By February 15, the patient was well. The patient discontinued his drinking because he said he did not need it to make him feel better. When seen again on June 21, he reported no recurrence of the throat condition.

Case 3. For 16 years, this 32 year old woman suffered from cough. It was worse the last five years. Chest x-ray was negative. Lipiodol study was negative. Many allergy tests were negative. The cough allowed her only four hours sleep a night. Physical examination, except for the throat, was negative. The throat was chronically inflamed. Sputum culture revealed heavy growth of Monilia albicans, also Micrococcus catarrhalis, and diphtherold bacilli. Skin test for Monilia albicans was two plus. Placed on vitamin B and liver injections twice a week, she exhibited marked improvement. Her condition became stationary by the end of the first course of ten injections. She continued on one injection a week without further improvement for six months. Then I added vitamins C and P. Within eight weeks thereafter, she said she was well. Seen again, seven months later, the patient stated that she had not coughed all summer but that the cough returned recently. "Laryngitis" was then the principal complaint. Placed immediately on liver, plus vitamins B, C and P, she reported sharp improvement in her condition.

Case 4. A 56 year old woman complained of hoarseness and cough for three weeks followed by pleuritic pains. Physical examination disclosed laryngitis. Auscultation of the chest revealed many rales and ronchi, and a pleuritic rub in the right base anterior. She had been on penicillin, aureomycin and cough sedatives during the previous two weeks. Direct smear of the sputum was loaded with budding branches. Culture revealed Monilia albicans with Staphylococcus albus. She was placed on vitamin B and liver injections twice a week. The cough subsided in three weeks, but the pleuritic pains persisted for another week following. Seen two months later, she reported herself well. Sputum was then negative for monilia.

Case 5. A 51 year old man complained of cough, general malaise, chills and night sweats. Clinical symptoms and blood count were typical of virus pneumonia. Sputum was relatively negative and showed no monilia. He was treated with aureomycin with marked clinical improvement for a few weeks. The cough persisted, however, though he had returned to work. A month later, the sputum showed Monilia albicans. He was then treated by vitamin B and liver, by mouth, three times a day. Sputum became negative and the patient reported himself well within a month.

Case 6. A 36 year old man complained of general malaise plus "tightness in chest". Clinical diagnosis was virus pneumonia. He was treated with aureomycin with clinical improvement. He reported ten months later, stating that the cough had never subsided completely. Sputum now revealed Monilia albicans. I placed him on heavy doses of liver and vitamin B by mouth. The cough disappeared before he had finished the first prescription, which was calculated to last for one month.

Thrush, sprue and celiac disease are all accompanied by fungus infections of the mouth and intestinal tract. These are all now known to be deficiency states. Evidence is here presented which might class certain fungus infections of the throat and lungs as deficiency states. All cases except one reacted favorably to vitamin B and liver by injection, or by

mouth. One patient (case 3) seemed also to require vitamins C and P. Of interest is that two of the cases (5 and 6) followed the use of aureomycin which is known to deplete the patient's supply of vitamin B. In the study of this condition, many sputum and throat cultures were taken. All were on sick patients, as there is no reason in a general practitioner's office to take throat and sputum cultures on well people. Only in cases of persistent cough or sore throat was monilia found. In all cases to date the condition responded to massive vitamin and liver therapy.

CONCLUSION

The presence of Monilia albicans in any considerable quantity in throat or sputum may signalize a deficiency state, calling for vitamin B and liver extract. Concurrent symptoms and signs may disappear after medication by these materials.

Acknowledgment is gratefully made to Mr. William H. Mair who so willingly lent his energy and time; and to Mrs. W. C. Werth who so competently assisted with this article.

547 E. Broad Street

EPIPHRENIC ESOPHAGEAL DIVERTICULUM

WITH REPORT OF A CASE

FRANK A. MARSHALL, M.D., Weehawken, N. J.

An esophageal diverticulum of the pulsion type is essentially a hernia with all the layers of the wall participating in sac formation;[1] or it is primarily a bulging of the esophageal mucosa and submucosa[2] through a muscular defect of the esophagus[3] at that level. The esophagus lacks a serosal covering.[4] Common denominator in the production of any esophageal diverticulum is a weakness, presumably congenital,[5] in the visceral wall. The precipitating factor is usually some excessive intra-luminal pressure. It seems unlikely that inflammation plays much of a role in the development of these diverticula since adhesions are so seldom found. Other factors which may contribute to an increase in intra-luminal pressure are cardiospasm, achalasia[3] or obstruction at the cardia from any cause. Cicatricial stenosis will likewise elevate intra-luminal pressures. Swallowing of partly masticated and large-sized boluses of food enhances intra-luminal tension and contributes to the symptoms. The more solid the mass, the greater its effect. Diverticula of the colon, for instance, are most common in the sigmoid where the contents are of more solid consistency than in the more proximal portions. Likewise, spasm and achalasia are more frequent in the sigmoid.

These factors are pertinent in explaining esophageal diverticula which occur primarily at the upper and lower ends of the esophagus. The pharyngo-esophageal area contributes 95 per cent of all so-called esophageal diverticula.[1] Thoracic and epiphrenic locations are considered uncommon but not rare.[2] Yet the latter actually represent the true esophageal type of lesion. Pharyngo-esophageal diverticula develop at the junction between these two segments of the upper alimentary tract rather than form as true esophageal pouches.[4]

True "pulsion-type" esophageal pouches occur just above the diaphragm[3] in front of and to the right of the esophagus[6] and generally are intra-pleural in location.[4] This latter property is a factor in surgical removal. The surprisingly rare association with cancer is a comforting thought, although hiatus hernia, as in the case reported below, is not an infrequent association. In the following case, the presence of diverticula elsewhere in the gastro-intestinal tract suggests that a constitutional, congenital factor is probably fundamental.

A well-nourished male, age 60, first seen in January 1949, has complained for the past five months of bitter taste (regurgitation?) and pain in the chest. The pain followed "hard swallowing". Con-

siderable distress was caused by the eating of bread. "Sandwiches bother me the most", he said, adding that they caused discomfort behind the lower sternum. Three months later he was complaining of pain at the angle of the left scapula. This pain was constant and not aggravated by swallowing. He reported a "queer feeling" in the upper chest after eating. Belching relieved this sensation. The patient has been comfortable since adhering to a regime of sedatives and anti-spasmodics, in addition to a dietary regime. No loss of weight nor of strength has resulted. Appetite is excellent.

He is a husky, sixty year old man, weighing 196 pounds, who appears in excellent physical condition. Pertinent findings include dental caries, with associated gingivitis of moderately severe nature. Heart sounds are strong, rhythm is regular with a rate of 76. Blood pressure was 174/86; later subsiding to 142/82. Lung sounds were normal. No abnormalities were noted in the abdomen. Extremities are in good condition with strong, full arterial pulsations. Slight tenderness is obtained on strong palpation over the left sacro-iliac.

Laboratory work is essentially negative with the exception of a rapid erythrocyte sedimentation rate 5, 10, 22, 34 as noted at fifteen minute intervals. The dental infection may have been responsible for this. A hematocrit of 43 confirms the clinical impression of absence of anemia. Wasserman and Mazzini tests are negative.

Electrocardiographic studies demonstrated no abnormalities. A horizontal heart with a sinus rhythm rate of 68 was present.

X-ray studies, including fluoroscopy, reveal normal heart contours and normal lung markings.

In the right oblique view of the esophagus, excellent visualization of a large pulsion type epiphrenic diverticulum is obtained, together with an associated herniation of a portion of stomach through the esophageal orifice of the diaphragm. A diverticulum of the second portion of duodenum is likewise noted. On fluoroscopy, about half of the diverticulum emptied fairly promptly, but the second portion was delayed for several minutes.

1. The association of pulsion type epiphrenic diverticulum with another in the duodenum suggests an underlying factor of congenital weakness and/or malformation. Presence of hiatus hernia is considered to be significant and not merely coincidental.

2. Discovery of one diverticulum anywhere in the gastro-intestinal tract requires further search for others.

1. Schena, A. T.: Academia Argentina de Cirugia, 1:349 (June 18, 1947).
2. Lindsay, Warren L.: Medical Bulletin of the Veterans Administration, 17:407 (April 1941).
3. Hurst, Arthur F.: Guys Hospital Reports, 75:361 (July 1925).
4. Sweet, Richard H.: Annals of Surgery, 125:41 (January 1947).
5. Smith, Lester A.: American Journal of Roentgenology and Radium Therapy, 19:27 (January 1928).
6. Lahey, Frank: Lahey Clinic Bulletin, 5:2 (July 1946).
7. Chehotarev, D. F.: Vestnik Rentgenologia i Radiologia x 24:28 (January 1940).
8. Quartero, P. B. V.: Acta Otolaryngologica (Paris) 15:94 (February 1931).

2202 Palisade Avenue

ACTH AND CORTISONE* IN ALLERGIC DISEASES

The effectiveness of ACTH and Cortisone* in the management of hay-fever and asthma was described by Drs. A. S. Friedlaender and S. Friedlaender at the 1951 congress of the American College of Allergists. They reported on 50 patients with hay-fever and asthma who were benefitted by these preparations. They found that ACTH had to be injected at 6-hour intervals, whereas daily injections of Cortisone* were successful in controlling symptoms. The therapeutic action of each drug lasted only as long as it was given. Cortisone* was as effective by mouth as by injection, but doses at 4 to 8 hour intervals were required. Repeated courses of the hormones gave the same effect as the initial series. Careful attention to dosage was required to prevent the development of side-effects.

*Cortisone is the former tradename of Merck for the compound 17-hydroxy-11-dehydrocorticosterone.

CAUSES OF INFANTILE ECZEMA

Although it is generally recognized that food allergy is the most common allergic factor in the cause of infantile eczema below the age of one year, Dr. S. Epstein,† of Marshfield, Wisconsin recently established the role of environmetal allergy in this disease. In a study of 247 rural children he noted that 79 per cent reacted to cattle or horse dander. During the first year of life, and even more during the second year, allergy to house dust, feathers, cattle and horse dander, et cetera, was as important as allergy to foods. Among the food allergens, wheat was the one most frequently encountered.

† At the 1951 congress of the American College of Allergists.

TREATMENT OF ACUTE SUBACROMIAL BURSITIS

Harry Merliss, M.D., Hackensack, N. J.

The patient with acute subacromial bursitis is usually in such severe pain that treatment must be considered as an emergency procedure. Most of these patients are treated with local Novocain* injections with or without irrigation or with x-ray therapy. Some orthopedists[1] advocate immediate surgical exposure and evacuation of the subacromial bursa.

No matter what procedure is favored, almost all therapists recognize the value of an immobilizing dressing, the local use of ice and sedation as adjunctive therapy.

However, a review of the pathophysiology of acute subacromial bursitis brings out facts that make one wonder whether the primary treatment is not adjunctive and the adjunctive therapy primary.

PATHOPHYSIOLOGY

An acute subacromial bursitis is usually considered a non-infective acute inflammatory process secondary to the irritation of calcific products of tendon degeneration which have ruptured into the bursa from the underlying attritional musculotendinous cuff. As the bursa is vascular synovial tissue, the inflammation causes it to become hyperemic, indurated, and swollen. Its cross-sectional measurements increase. As pain develops, spasm of the deltoid occurs in an effort to immobilize the glenohumeral region. Since the bursa is between the head of the humerus and the acromion process, this spasm together with the increased cross-section of the bursa results in compression-tension of the bursal tissues. The slightest shoulder motion then causes contusion of the already inflamed compressed tissues.

An analogy may be drawn with a laceration on the sole of the foot which is compressed and rubbed by the shoe until it becomes very painful.

The calcific deposits are discharged into the bursa at one time and are gradually absorbed. It follows, therefore, that the attack is spontaneously self-limited.[2] Persistence of chronic shoulder pain may occasionally occur, but this is attributed to residual non-discharged calcified detritus in the musculotendinous cuff. In many cases, the acute subacromial bursitis is a last episode to a preceding chronically painful shoulder of years' duration.

TREATMENT

The rational principle of therapy would seem to be to relieve the intrabursal tension and reduce the inflammatory process, if possible.

When the calcific detritus can be removed by irrigation this will hasten subsidence of the inflammatory reaction. However, this is seldom if ever complete and therefore may fail to achieve its objective. Local injection of Novocain* may help relieve the acute symptoms immediately but is often followed by even more acute pain when the effect of the drug wears off. Surgical intervention would seem too radical for a condition that is self-limited without surgery. X-ray therapy is not always effective; nor is it completely benign.

Merely to place the patient in a sling and sedate him heavily is often not sufficiently pain-relieving to avoid jeopardizing the doctor-patient relationship. This procedure is often the practitioner's last resort when Novocain,* x-ray or surgical therapy has failed to give immediate relief.

A very simple form of therapy, based on an understanding of the pathophysiology of subacromial bursitis, was called to the author's attention by Dr. Donald Gordon[3] in 1948. It was an "old" treatment that had gone out of style without "catching on" and was not seriously considered until the following case was seen:

CASE REPORT

In October 1949, a woman awoke with pain in the right shoulder which was so severe that she could not move the arm at all. She was given 8 deep x-ray treatments. Her hand then became swollen and dark in color and her pain became more severe. This gradually subsided over the next 6 months leaving her with a stiff hand, wrist, elbow and shoulder.

*Novocain is the trade name used by the Winthrop Chemical Company for their brand of procaine hydrochloride.

She was first seen by the author at this time. Motion was painfully recovered over the next three months except for her fingers which responded incompletely to elastic splinting, active exercises over an additional six months.

On January 6, 1950, she developed acute pain in the left shoulder. She was a thin, "high-strung" white female in severe pain aggravated by any motion of the shoulder and localized just lateral to the tip of the acromion process. X-rays revealed a large calcific shadow amorphous in structure which extended over and beyond the greater tuberosity of the humerus.

She was in such an agitated state because of her previous experience that no active therapy could be considered. The thought of further x-ray therapy or "needles" or surgery threw her into a state of panic.

She was placed in a Jones collar and cuff sling with two pounds of traction hung from the elbow. In addition, a swathe encircling the arm and body was applied to add to the immobilization. Within 20 minutes, pain was considerably relieved. Evidently the traction relaxed the deltoid spasm and increased the acromiohumeral space thus relieving the intra-bursal tension. She was given Demerol,† advised to place an ice bag against her shoulder and to sleep in a sitting position. After 4 days, residual ache was relieved. The traction and swathe were then removed and her arm placed in a triangular bandage sling.

In one week, pendulum exercises were started and after an additional week, residual stiffness had disappeared. Since that time she has had no complaints referrable to her left shoulder or arm.

Since then, I have treated seven cases in a similar manner. The main features of these cases are summarized in the table.

Previous to the use of simple traction, immobilization, ice and Demerol,† I had seen cases that were sufficiently prolonged and painful (in spite of various conservative measures) to warrant surgical intervention even though it was known that the condition is self-limited. However, all of the patients in this small group were sufficiently relieved of their acute pain so that with the supplementation of Demerol,† local cold, and rest at home, they were able to tolerate their residual ache for the several days during which it existed.

Pendulum exercises were usually not started until the seventh day, however, and motion usually returned rapidly. In one case complete internal rotation remained painful.

SUMMARY AND CONCLUSIONS

1. The pathophysiology of acute subacromial bursitis is reviewed. Its self-limited character is pointed out.

2. The rationale of therapy is to relieve intra-bursal tension and reduce the inflammatory response by preventing contusion of the intra-bursal tissues.

3. A critique of existing methods of therapy is given together with a case of acute subacromial bursitis that was easily handled with traction, immobilization, ice and Demerol,† without more active treatment.

4. A series of seven cases, all treated in the same manner was presented with uniformly good results. Details of their clinical courses were summarized in a table.

ACUTE SUBACROMIAL BURSITIS

Case	*Age*	*Acute Pain Developed*	*Acute pain relieved within*	*Symptoms absent since*	*Follow-up*
1	56	Jan. 6, 1950 (18 hrs.)	20 minutes	Jan. 23, 1950	No symptoms
2	52	Mar. 3, 1951 (4 hrs.)	8 hours	Mar. 29, 1951	No symptoms
3	43	Mar. 20, 1951 (24 hrs.)	8 hours	Mar. 31, 1951	No symptoms
4	35	Feb. 1, 1951 (3 days)	2 hours	Mar. 15, 1951	Slight residual pain on internal rotation
5	58	May 29, 1951 (4 days)	36 hours	June 11, 1951	No symptoms
6	49	May 8, 1951 (2 days)	6 hours	May 28, 1951	No symptoms
7	46	June 18, 1951 (2 days)	30 minutes	June 27, 1951	No symptoms

NOTE: All patients were females. In cases 5, 6 and 7, not enough time has elapsed to justify reporting a "follow-up". However calcification has absorbed and there is no reason to expect further difficulty.

972 Main Street

BIBLOGRAPHY

†Demerol Hydrochloride is the Winthrop Chemical Company's trade name for their brand of pethidine.

1. De Palma, Anthony F.: *Surgery of the Shoulder*, J. B. Lippincott Company, Philadelphia, pages 184-185 (1950).
2. Jones, Blundell G.: The Journal of Bone and Joint Surgery, 31:433 (1949).
3. Gordon, Donald: Lectures on Fractures and Dislocations given at Seton Hall University, May 1948, under the sponsorship of the Essex County (N. J.) Medical Society.
4. McLaughlin, Harrison L.: Muscular and Tendinous Defects at the Shoulder and Their Repair. "The American Academy of Orthopaedic Surgeons Presents Lectures on Reconstruction Surgery". J. W. Edwards, Ann Arbor, Michigan, pages 356-357 (1944).

TREATMENT OF TRICHINOSIS WITH CORTISONE

FRIEDRICH ROTHENBERG, M.D., Paterson, N. J.

A minor outbreak of trichinosis was observed. The source was uncooked pork sausage consumed two weeks before onset of symptoms. Four people who ate the pork contracted the disease: three of them (members of one family) came under my care. Two of them were successfully treated with Cortisone.

CASE ONE

A 44 year old female became ill on March 26. I saw her five days later. Her temperature was 103. She complained of general malaise, dizziness and occasional "cramps" in the abdomen, but no diarrhea. Findings were non-conclusive. She had a moderate leucocytosis with a 20 per cent eosinophile count. Next day the temperature rose to 105; a severe general scarlatina-like rash developed with moderate swelling of the eyelids. There were no outspoken muscle pains. Temperature continued to be high and spiking. The rash became vesicular, pustular and, in some places, hemorrhagic. My first impression was that I was dealing with an allergic dermatitis of undetermined origin. This opinion was shared by two consultants: an internist and a dermatologist, and confirmed by skin biopsy. Leucocyte count soon reached 27,000 with an eosinophilia up to 33 per cent.

Treatment was, at first, purely symptomatic with mild laxatives, antihistaminics and local calamine preparations. This produced no change in the patient's condition.

After the development of disease symptoms in two other members of the family, a history of ingestion of uncooked pork was elicited. On April 5 a tentative diagnosis of trichinosis was made and I decided to try Cortisone. Intramuscular dose was 100 milligrams three times on the first day, followed by 100 milligrams b. i. d. the next two days; thereafter 100 milligrams a day. A few hours after the first injection the temperature dropped to normal and stayed normal; the rash rapidly subsided with subsequent scaling of the skin; the swelling around the eyelids disappeared, the general condition spectacularly improved within one day. A diagnostic trichinella skin test, done after the rash had subsided, was negative (Cortisone effect?). Cortisone was discontinued after six days. In spite of the disappearance of all clinical symptoms the leucocytosis and eosinophilia subsided only gradually.

CASE TWO

On April 3, a 12 year old boy developed symptoms of general malaise. An outspoken edematous swelling was seen around both eyes involving both upper and lower lids and edema of both temples. There were moderate muscle pains in both shoulders, arms and legs, but no gastro-intestinal symptoms. The temperature spiked to 105.4 and remained between 102 and 105 for nearly one week. A trichinella diagnostic skin test on April 6 was strongly positive within 15 minutes. Leucocytosis was up to 29,650 with eosinophilia to 64 per cent. All symptoms remained unchanged until April 10, when treatment with Cortisone was started. A few hours after the first injection of 62.5 milligrams the temperature dropped to normal and stayed normal. Swelling of the face disappeared, muscle pains subsided, general condition and appetite improved markedly.

Treatment was continued for five days with Cortisone tablets (50 milligrams per day). After the discontinuation of Cortisone, his condition remained good. In spite of the disappearance of all clinical symptoms, the leucocytosis and eosinophilia subsided only gradually.

CASE THREE

A male, 44 years old, gave a history of having had a severe attack of trichinosis 20 years ago. He now showed mild symptoms consisting of weakness, temperature up to 102, diarrhea, slight edema around the eyes, temporary swelling of lips and abdominal "cramps". He did not stop working and was examined by me only (on April 4) after his symptoms had already existed for one week. Blood count showed moderate leucocytosis with 45 per cent eosinophile cells. Treatment was purely symptomatic. Four weeks after the onset of symptoms he was still ailing.

CASE FOUR

A male, aged 25, partook of the same pork meal. Two weeks later he developed symptoms similar to those of case 2, but much milder. He was under the care of another physician who recognized it as trichinosis. Only symptomatic treatment was given. The patient is said to be still incapacitated more than 3 weeks after the onset of symptoms.

It was later learned that his 8 year old daughter had eaten a small piece of the pork. Four weeks after this ingestion, she developed mild swelling around the eyes without systemic symptoms. On April 24, a diagnostic trichinella skin test was weakly positive. Blood count showed a leucocytosis of 17,800 with 33 per cent eosinophile cells.

On inquiry at the Medical Division of Merck and Company, a manufacturer of Cortisone, I learned that no previous cases had ever been reported of the treatment of trichinosis with Cortisone. The two patients treated with this preparation showed immediate and apparently lasting disappearance of all clinical symptoms. I believe that it was the influence of Cortisone on the allergic symptoms (caused by trichinella spiralis) that produced an immediate clinical cure.

395 Ellison Street

STATE ACTIVITIES

TRUSTEES' MEETING

OCTOBER 7, 1951

A regular meeting of the Board of Trustees was held Sunday, October 7, 1951, at the Executive Offices, Trenton.

Following is a resume of the salient actions taken by the Board upon the reports submitted by the Executive Committee: With reference to the report of the Executive Committee, of its regular meeting held on August 12, 1951:

1. The appointment of Dr. Lewis H. Loeser as the Society's representative to the "Advisory Commission on the Problems and Needs of the Mentally Deficient" was approved.

2. It was recommended that the New Jersey Bell Telephone Company be asked to clear through the State Society the names of all physicians recently licensed to practice in New Jersey, to enable the State Society to designate "M.D." or "D.O." to insure proper listing in the classified directory. The Board also requested the President to inform the company that it should not encourage or solicit for its classified sections the listing of specialty or office hours after a practitioner's name.

3. Approval was given to the report and recommendations submitted by the Welfare Committee of its regular meeting held on June 3, 1951, as published on page 519 of this JOURNAL.

With reference to the report of the Executive Committee of its regular meeting held on September 9, 1951:

1. The members of the Advisory Committee on Mental Hygiene were named as the Medical Advisory Committee for the Epilepsy Program recently launched under the sponsorship of the New Jersey Chapter of the National Society for Crippled Children and Adults, Inc.

2. The appointment of Dr. Harrison F. English as Medical Society representative on the Advisory Council to the Epilepsy Program was approved.

3. That one hour of the first session of the House of Delegates at the 1952 Annual Meeting be set aside for the celebration of the Tenth Anniversary of Medical-Surgical Plan of New Jersey, the program for the celebration is to be formulated by Medical-Surgical Plan.

4. The Board approved a proposal for a medical-press-radio-television informal dinner meeting on November 13, 1951, to be sponsored by the Subcommittee on Public Relations. Purpose of the meeting will be to lay the groundwork for the establishment of a code of cooperation among the groups named.

5. The appointment of Dr. Elton W. Lance as representative of The Medical Society of New Jersey on the Biological Warfare Defense Committee of New Jersey was approved.

6. Approval was given to the designation of Dr. Gerald I. Cetrulo as Chairman for the activities of the American Medical Education Foundation in New Jersey.

With reference to the report of the Executive Committee of its regular meeting of October 7, 1951:

1. The Board authorized the reactivation of the Special Committee to Implement the New Jersey Plan, to be composed of Dr. Royal A. Schaaf, Chairman; Dr. Sigurd W. Johnsen, Vice-Chairman; Dr. Harrold A. Murray, Dr. Vincent P. Butler, and Dr. Joseph P. Donnelly. This Committee will speak for the State Society at the meeting of the A.M.A. "Committee to Revise the Twelve Point Program", to be held in New York City on October 27, 1951.

2. A special committee to give extensive study to the Medical Society's liaison with other organizations through its various committees was established. Dr. Harrold A. Murray was named Chairman, and Dr. Henry B. Decker and Dr. Elton W. Lance were designated members.

3. Approval was given to the appointment of the following as members of the Nutrition Committee: Chairman, Dr. S. William Kalb: Dr. Arthur D. Sewall, Cumberland; Dr. Charles M. Aronsohn, Passaic; Dr. Leslie M. Townsend, Union; Dr. Hazel A. C. Lin, Hudson; Dr. Harry W. Fullerton, Salem; Dr. Charles F. Church, Middlesex; Dr. John J. Piampiano, Sussex; and Dr. Albert F. Schmidt, Monmouth.

4. A motion was approved directing that the 1952 General Session be scheduled for 8:00 p. m. on Monday evening, May 19, 1952, at Haddon Hall, and that it be devoted to the program "You and Your A.M.A."

5. The Board approved a motion establishing a Liaison Committee between The Medical Society of New Jersey and the New Jersey Bar Association. Medical members of this Committee will be: Dr. Aldrich C. Crowe, Chairman; Dr. C. Byron Blaisdell; Dr. Joseph E. Mott; and Mr. Richard I. Nevin, *ex-officio*.

6. Approval was given to the appointment of Dr. Royal A. Schaaf as a member of the Advisory Committee on Cancer Control, and to the appointment of the following consultants: Dr. Edwin D. Merrill, Chief, Bureau on Cancer Control, State Department of Health; Emil Frankel, Ph.D., Di-

rector, Division of Statistics and Research, State Department of Institutions and Agencies; and Mr. Charles Hansbury, Executive Director, New Jersey Division, Inc., American Cancer Society.

7. Approval was given to the nomination of Mr. Arthur W. Lunn, of Maplewood, as a member of the Board of Trustees of Medical-Surgical Plan, to serve until the next meeting of the corporation and until his successor is elected and qualified.

8. In conjunction with its approval of the report of the Welfare Committee of its meeting held on September 9, 1951, as printed on page 520 of this JOURNAL, the Board approved the appointment of Dr. Herschel S. Murphy as New Jersey Chairman of the National Doctors' Committee for Improved Federal Medical Services.

9. The Board accepted the resignation of Dr. David B. Allman as A.M.A. Delegate from New Jersey, submitted in consequence of his having been elected Trustee of the A.M.A. Dr. Aldrich C. Crowe, current Alternate, was then named to fill Dr. Allman's unexpired term.

WELFARE COMMITTEE MEETING

June 3, 1951

REPORT TO THE EXECUTIVE COMMITTEE*

The Welfare Committee approved the following recommendations of the Subcommittees and submits them to the Executive Committee for consideration:

LABORATORY MEDICINE

The following recommendations were approved by the Welfare Committee:

(1) A resolution by The Medical Society of New Jersey reaffirming that pathology and laboratory medicine are specialties of the practice of medicine.

(2) Recommendations that the pathologist be a member of the senior medical board of the hospital and that pathology be recognized as a service in the hospital similar to medicine, surgery and the medical and surgical specialties.

(3) Recommendation that pathologists in New Jersey be urged to establish facilities in their individual communities for pathology and laboratory medicine for non-hospitalized persons. This may be done either through an arrangement with the hospital by which the pathologists participate in the fee, allowing the hospital to recover a fair share of the fees for overhead expenses; or by establishing facilities outside the hospital for the convenience of the public and profession.

(4) Recommendation that The Medical Society of New Jersey, through its JOURNAL and its monthly *News Letter*, repeatedly impress upon its members the desirability of utilizing medically operated facilities for laboratory medicine where available in preference to non-professional facilities.

(5) Recommendation of the Committee that pathologists participate in the net income of the hospital laboratory in one of several ways as recommended by the College of American Pathologists. Purpose of this is to protect the professional status of the pathologist as a private practitioner of medicine and to encourage the development of laboratory facilities by the pathologists through the reward for effort expended.

OBSTETRICAL CONSULTATION

The Welfare Committee approved the following recommendation: In the event of mandatory obstetrical consultation required by hospital regulations, but not requested by the attending physician, no payment should be required by the patient nor by Medical-Surgical Plan of New Jersey.

LEGISLATION

The Welfare Committee approved the following activities of the Subcommittee on Legislation:

(1) To introduce at the next session of the Legislature an amendment to the narcotics act making it mandatory to impose the maximum penalty on any violator of the act who is found to be supplying narcotics to teen agers.

(2) To sponsor an amendment to A-1 so that doctors not possessing public health degrees may be engaged as health officers, on either a full or part-time basis.

REHABILITATION

The Welfare Committee approved the following recommendations:

(1) Since there is a need for changing the thinking of general hospitals with regard to poliomyelitis, it is recommended that general hospitals be urged to admit these cases without restriction.

(2) Insurance for poliomyelitis be endorsed *in principle* and be referred to the appropriate committee for consideration.

MEDICAL SCHOOL

The Welfare Committee approved the following recommendations:

(1) That The Medical Society of New Jersey go on record in favor of a medical school and on believing that the need exists for a medical school.

*As adopted by Executive Committee on August 12, 1951; and by Board of Trustees on October 7, 1951.

(2) The need for a medical school exists and should be met at the earliest possible time. We should not delay action but should try to speed up action in the formation of such a school.

(3) There should be close cooperation between the Committee on the Medical School, the Public Relations Committee and the Subcommittee on Legislation to develop a three point program of concentrated effort in forwarding this project.

(4) As much publicity as possible should be given throughout the state to the fact that we have such a Committee. The names of the Committee members should be publicized. It should be made known that each district of the state has representation on this Committee.

(5) The report of the Commission should be given to all newspaper editors throughout the state and the Public Relations Committee should give as wide publicity as possible to all information on the medical school.

(6) Members of the Special Committee on Medical School be permitted to appear at legislative hearings to give technical advice.

ANESTHESIOLOGY

The Welfare Committee approved the following recommendations:

(1) The physician-anesthesiologist should conduct his practice on a private fee basis. The overall policy should be that it be considered unethical for any practicing physician-anesthesiologist to enter into a relationship with any hospital, corporation or lay body which enables it to offer his services for a fee. In insurance or other prepayment programs, hospital service contracts should provide for hospital services only; medical service contracts should provide for medical and surgical services. Hospital services should not include the administration of anesthesia by a physician. The latter has been defined by the American Medical Association as the practice of medicine.

(2) No stigma should be attached to any physician because of financial arrangements existing at the time of the adoption of this policy provided an honest effort is being made by the doctor to change his existing commitments in order to comply with this statement of policy.

(3) The Advisory Committee on Anesthesiology recommends that The Medical Society of New Jersey initiate a campaign to educate the doctors, hospitals and the public on the proper standards of medical practice and the dangers inherent in impersonalizing the practice of medicine by delegating control to a lay institution. We recommend that The Medical Society of New Jersey be vigilant to detect and correct violations of ethical standards before harmful customs can become established. We recommend that the Society do all in its power to end the practice by which hospital service insurance contracts provide payment for the administration of anesthesia by a physician.

WELFARE COMMITTEE MEETING

September 9, 1951

REPORT TO THE EXECUTIVE COMMITTEE*

The Welfare Committee approved the following recommendations at its meeting on September 9 and submits them to the Executive Committee for consideration:

COMMITTEE ON MEDICAL SCHOOL

That the progress report of the Special Committee on Medical School be publicized in the *Membership News Letter.*

LEGISLATION

That the New Jersey law be amended to increase the penalty for violations of the Narcotic Act to 7 years imprisonment and a fine of $2000 for the first offense and 15 years imprisonment and a fine of $4000 for subsequent convictions. The committee plans to propose this amendment to the Legislature when it convenes in January 1952.

MEDICAL PRACTICE

(1) That the Medical Society name a New Jersey chairman of the National Doctors Committee for Improved Federal Medical Services.

(2) That the Society's legal counsel be consulted as to the best way of broadening the law to bring under liability and insurance coverage those who might be negligent in hospitals; or that a test case be considered to broaden the law.

(3) That the problem of vacationing physicians practicing medicine in resort towns be handled by the local county medical societies, inasmuch as these physicians have New Jersey license to practice.

*As adopted by Executive Committee and Board of Trustees on October 7, 1951.

PUBLIC HEALTH

(1) That The Medical Society of New Jersey should associate itself with the New Jersey Welfare Council as an associate group, with an annual membership fee of $10; and that Dr. Harrold A. Murray be asked to represent the Medical Society at the Council's convention in Asbury Park in November 1951.

(2) *Cancer Control.* (A) That the Society approve the "Home Visitor Program" of the American Cancer Society to be initiated as a pilot study in Passaic County.

(B) That the Society approve another Nurses Institute to be held under the sponsorship of the New Jersey Division of the American Cancer Society.

(C) That the Society approve a request from the Bureau of Cancer Control of the State Department of Health to conduct research and epidemiologic study of cancer.

(3) *Film on Obesity.* That the Society approve, without prejudice to future action, the film on obesity "Losing to Win", issued by the Metropolitan Life Insurance Company.

(4) *Polio Pointers.* (A) That the Society approve *Polio Pointers for 1951,* as published by the National Foundation for Infantile Paralysis, with the fifth point rewritten as follows:

Telephone your local chapter of the National Foundation for Infantile Paralysis, if you need help. Locate it through telephone book or health department. Your chapter will pay what you cannot afford for hospitalization or for special nursing care.

(B) That the Medical Society call to the attention of the National Foundation for Infantile Paralysis and other organizations that, as a principle, The Medical Society of New Jersey disapproves of the payment of fees obtained through fund raising to physicians for the medical care of medically indigent and indigent patients; that wider publicity be given to this philosophy because the public is not conversant with the recognized practice of the medical profession to take care of such patients without expecting fees from any sources whatsoever.

(5) *School Health.* (A) That the term "physical examination" as it appears in the "Four Point Program" be defined as follows:

Physical examination for the purpose of the "Four Point Program" is defined as a screening process to find physical defects which are to be reported to the parents for correction.

(B) That the Society point out to the New Jersey State Council for the Improvement of School Health Services that it is an instrument formed for a particular purpose, namely, the promotion of the "Four Point Program"; and that the Council direct its energies this year to that end alone.

(6) *Public Health Week.* (A) That Public Health Week be observed by county medical societies from November 5 to 10.

(B) That no exhibits be scheduled, but that county societies be urged to hold essay contests throughout the secondary schools and colleges on the subject "My Community is a Healthy Place in Which to Live"; and that civic and service clubs be urged to have a meeting during Public Health Week with a speaker conversant with public health matters.

(7) *Child Health.* That the Child Health Committee study the question of isolation and quarantine procedure and bring in recommendations for the attention of the State Department of Health.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN

Dr. H. A. Tarbell, treasurer of the Society for the Relief of Widows and Orphans of Medical Men of New Jersey has recently released its 69th Annual Report. This unique helping-hand organization is of interest to all New Jersey physicians, and an abstract of that annual report follows:

During the fiscal year ending May 1, 1951, the Society increased its net membership from 578 to 589. Seventeen members died, eight resigned; but this loss was counterbalanced by a gross gain of 36 new members. Death benefit has averaged about $460 per death. Investments have brought an income of $2030 to the Society during the year. Many widows are still receiving quarterly donations of about $300 a year from the Society. Operating expenses of the Society totalled less than $1165 last year. Death benefits paid out amounted to $9671. Every member who died during the past year was in good standing at the time of his death. Under a recently enacted By-Law, a widow now receives 80 per cent of the assessment instead of 75 per cent as previously.

Physicians interested in participating in the benefits of this respected and long-established organization may obtain further details by writing to the secretary, Dr. Charles C. Crane, at 78 Farley Avenue, Newark 8, N. J.

ALCOHOL FIXATIVE FOR PAPANICOLAOU SMEARS

In the October JOURNAL (page 454) mention was made of a state-wide diagnostic service for the examination of Papanicolaou smears. Usually these smears are submitted in 95 per cent *ethyl* alcohol. In this connection, the Medical Committee of the New Jersey Cancer Society, through Dr. Joseph I. Echikson, chairman of the subcommittee on professional education, called attention to the fact that it was difficult to get 95 per cent ethyl alcohol. He asked whether any other alcohol would do. Dr. William G. Bernhard, director of laboratories at St. Barnabas Hospital (Newark) communicated with Dr. Papanicolaou and reports as follows:

"It is Dr. Papanicolaou's opinion that 95 to 100 per cent *methyl* alcohol could be used in making the necessary alcohol-ether mixture." Also known as "methanol" this alcohol is readily available at about 83c a pound—considerably less in five-pound lots. "Methyl alcohol", writes Dr. Papanicolaou "would answer the purposes admirably without affecting the technic of staining the smears. The methyl alcohol should be used in equal parts with ether". Incidentally, 70 per cent methyl alcohol can also be used to collect material for sputum, urine or other body fluids."

Dr. Echikson also directed the following question to Dr. Bernhard: "There is not available to us a list of pathologists to whom these (Papanicolaou) specimens may be directed. How can such a list be made available?" Dr. Bernhard's answer was:

"We would like to handle the Papanicolaou smears in the same way that the biopsies are handled, requesting the doctor to send the specimen to the nearest pathologist. Thus the two doctors could talk over the case and its problems. If a list were published, undoubtedly a few names will be used for a great many of the specimens. We want to keep this on a local level as much as possible and thus offer a service which the local pathologist can pass on to a Board from our Society if he wants another opinion."

APPEAL FOR MORE EYES

Eyes are urgently needed by the Eye-Bank for Sight Restoration, Inc. Since its establishment in 1945, there has been an increased demand for eyes for the corneal transplant operation. At first it was thought that 50 eyes a year might fill the need in a city the size of New York, but since its creation the Eye-Bank has taken on a national character. It furnishes eyes to the city of New York and nearby New Jersey communities. It supplies most of the eyes to doctors who perform corneal transplants throughout the country.

More and more doctors are being trained each year in this technic. And because of recent advances it has been found that there are many more cases which can be operated upon than was at first supposed.

It is hoped that doctors will report the deaths of those who have expressed the wish that their eyes be donated to the Eye-Bank, and that doctors attending patients who die in hospitals will find it possible to obtain the consent of the next-of-kin to have the eyes sent to the Eye-Bank. When a doctor gets this consent in a hospital, if he will telephone New York at Templeton 8-9200 (charges may be reversed) the Bank will tell him how to pack the eyes, and would make all arrangements to bring them in.

It is also hoped that doctors who are enucleating eyes, where the cornea is in good condition, will report in advance to the Eye-Bank* that they are going to enucleate.

* Address is 210 East 64th Street, New York 21, N. Y.

SUPPLEMENTARY LIST No. 6
TO THE OFFICIAL LIST OF MEMBERS AS OF MARCH 1, 1951
OCTOBER 20, 1951

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Baganz, Crawford N., Vet. Administrat'n, Lyons(14)
Boozan, Charles W., 33 De Witt rd., Elizabeth (20)
Brady, James L., Esso Standard Oil Co., Linden (20)
Brown, Mary Frances, 84 Hercules pk., Kenvil (14)
Coultas, Elizabeth L., 1 Madison av., Madison (14)
Denholtz, Myron S., 454 Tillou rd., S. Orange (13)
Goldstein, Joseph D., 2801 Boulevard, Jersey City(9)
Heilbrunn, Julius, 2540 Boulevard, Jersey City (9)
Mahoney, Vincent P., 300 Broadway, Camden (4)
Mazza, James G., 260 Westwood av., L. Branch (13)
Morrone, John A., 3540 Boulevard, Jersey City (9)
Phillips, Claude B., 885 Haddon av., Collingswood(4)
Powell, Matthew J., Main st., Bedminster (18)
Robertson, Robert B., 69 Maple av., Red Bank (13)
Rogers, Edwin D.,2500 Pen'gton rd.,Trent'n R.D.(11)
Rude, Richard S., 248 E. Ninth st., Plainfield (20)
Sakson, John A., 117 Centre st., Trenton (11)
Salasin, Robert G., Brook General Hospital, Fort Sam Houston, Texas (1)
Santor, Daniel, 15 W. Taunton av., Berlin (4)
Tilney, Robert W., Jr., 34 Elm st., Morristown (14)
Ware, Charles I., 174 N. Main st., Pleasantville (1)
Yazujian, Levon D., 562 E. State st., Trenton (11)

OBITUARIES

DR. FILBERT R. CORSON

Dr. Filbert R. Corson, prominent Atlantic City physician and surgeon for 35 years, died on October 13, 1951, at his home in Beesley's Point, at the age of 61.

Dr. Corson received his medical degree from the Medico-Chirurgical College of Philadelphia in 1913. He specialized in the diagnosis and treatment of gastro-enterology and was a member of the American Gastro-Enterological Society.

Dr. Corson served at Camp Dix during World War I and was a frequent lecturer throughout the East as the first medical instructor-inspector sent out by the Army. He was active in sports and was an ardent fisherman and duck hunter.

DR. ALVIN E. KUHLMANN

Dr. Alvin E. Kuhlmann, attending orthopedic surgeon at the North Hudson Hospital for 28 years, died on September 13, 1951, of a heart attack.

Dr. Kuhlmann was born in Fairview in 1891 and received his medical degree from Columbia University's College of Physicians and Surgeons in 1914. He had resided in Union City since 1923.

DR. WALTER A. McCULLOUGH

Dr. Walter A. McCullough died on September 17, 1951, at his home in Daytona Beach, Florida.

Born in Tennessee in 1892, Dr. McCullough was graduated from Vanderbilt University School of Medicine in 1917, and served his internship at Kings County Hospital, Brooklyn. Dr. McCullough practiced in Bloomfield and Montclair until 1930, when he joined the staff at Overbrook Hospital. He was an Emeritus Member of the Essex County Medical Society and The Medical Society of New Jersey.

DR. THEODORE V. J. MITSKAS

Dr. Theodore V. J. Mitskas, prominent Trenton eye, ear, nose and throat specialist, died suddenly on October 2, 1951.

Dr. Mitskas was born in New Philadelphia, Pa., in 1905. He received his medical degree from Hahnemann Medical College in 1930, and interned at McKinley Hospital in Trenton. He was on the staffs of McKinley Hospital, Trenton General Hospital and the Wills Eye Hospital, Philadelphia. He did postgraduate work in Vienna and Budapest in 1937-1938. He was a member of the Pan-American Medical Society and the International College of Surgeons.

DR. ISAAC SHENFELD

Dr. Isaac Shenfeld, 59, chief of the Atlantic City Hospital Clinic Medical Department, died of a heart attack on September 24, 1951.

A native of Russia, Dr. Shenfeld received his medical degree from Odessa Medical Institute, Odessa, in 1922. For several years he was on the staff of Columbia Hospital, New York City. He came to Atlantic City in 1926.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

The State Department of Health has been advised that localized epidemics of moderately severe kerato-conjunctivitis are occurring in some of the western states. These patients had moderately severe fever, headache, vomiting, generalized aching and conjunctivitis. The conjunctivitis may be unilateral and associated with edema of the lid, scleral injection, follicular hypertrophy of the palpebral conjunctiva, a watery discharge, and enlargement and tenderness of the pre-auricular lymph node. In some instances multiple pin-point corneal opacities have been observed.

Transmission is apparently through contact with an infected person or carrier, or with articles freshly soiled with eye and nasal discharges. Isolation and quarantine measures are not required provided hygienic measures are taken by infected persons. Articles soiled with conjunctival and nasal discharges should be disinfected or destroyed.

Appropriate chemotherapeutic or antibiotic agents under medical direction may shorten the period of communicability.

The State Department of Health desires reports of outbreaks of conjunctivitis in order to assist local Boards of Health with their investigation.

* * *

Hugh D. Palmer, M.D., M.P.H., joined the staff of the State Department and has assumed the duties of District State Health Officer of the Southern State Health District which has headquarters in Haddonfield. The Southern State Health District, an administrative subdivision of the State Department of Health, includes Atlantic, Camden, Cape May, Cumberland, Gloucester and Salem Counties.

The Southern District is the second to which a District State Health Officer has been assigned. Jesse B. Aronson, M.D., M.P.H., has been for some time District State Health Officer of the Central State Health District with headquarters at 172 West State Street, Trenton.

District state health officers serve under the general administrative direction of the State Commissioner of Health and under the technical direction of the Director of the Division of Local Health Services. Under the supervision of these two officials, they assume responsibility for developing, planning, organizing, directing, and promoting programs of public health in their respective districts.

Dr. Palmer formerly lived in Camden. He was educated at Columbia University and at McGill University, Montreal. He served in the U. S. Army as a medical officer attached to a collecting station. After the cessation of hostilities, he served for three years in Austria successively as Military Governor of Hospitals; Chief, Public Health and Welfare Division, Military Government, and Public Health Officer for the U. S. Zone Command. He returned to civilian life as Assistant to the Director, Office of District Health Administration of the New York City Health Department.

* * *

Dr. Daniel Bergsma, State Commissioner of Health, reported to the Public Health Council in September that $1 in 1951 does in tuberculosis control activities of the Department what it took $1.63 to do in 1949.

The Department has achieved this, according to Dr. Bergsma, in two ways:

1. It has concentrated its case-finding equipment and efforts in areas in which tuberculosis is most prevalent. It does so on the basis of cases of tuberculosis and deaths from tuberculosis reported to the Department. This policy of "selective mass screening" has brought a 14 per cent increase in positive referrals. In other words, more potential tuberculosis patients are being found per dollar expended.

2. The Department has been able to achieve a substantial increase in purchasing power, in dollars spent in tuberculosis control, through a 30 per cent cut in costs of taking and processing x-rays.

Dr. Bergsma told the Council that if the Department could double or triple the intensity of its present tuberculosis control program, in the not too distant future the present death rate from tuberculosis would be cut in half and the savings to the state government alone would aggregate three-quarters of a million dollars per year. In addition, individuals, municipalities, and counties would be saved costs that now run up into the millions annually.

The Council urged that every effort be made to secure funds to enable the Department to intensify its present tuberculosis control program.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard B. Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, October 12, 1951, Dr. Anthony G. Merendino presiding.

DR. MARIO A. CASTALLO, associate professor of Obstetrics, Jefferson Medical College, Philadelphia, was the guest speaker. His subject "Recannulization of the Fallopian Tubes", was ably presented and was of unusual interest. This presentation was the recipient of second prize at the A.M.A. Convention and is an outstanding piece of work in a new field of investigation. The paper was discussed by Drs. Brown, Bayer and Gottlieb, and the President thanked Dr. Castallo in behalf of the Society.

DR. ALBERT MARTUCCI, consultant medical adviser to the United Cerebral Palsy Association, spoke to the Society at the President's request, in reference to the problems that have arisen in the operation of the local Cerebral Palsy Clinic. This clinic is at present under lay supervision with Drs. Martucci and Temple Fay as its medical advisers. Dr. Martucci stated that it is vitally necessary for the local Society to lend its support; that while it is essentially a lay-operated organization, it needs medical guidance and supervision. At present, this clinic meets once a month at the Children's Seashore Home. The cases are screened, a diagnosis is arrived at, and treatment is prescribed. Dr. Martucci stated that the medical work is attended to by Dr. Fay and himself only until local physicians can be trained to take over.

Upon vote of the Society, DR. GENE W. SCHRAEDER was elected to Associate membership.

Dr. Naame, reporting for the advisory committee on Cerebral Palsy, stated that the committee had concluded that a proper staff for the cerebral palsy work could best be obtained on a volunteer basis. It was agreed that volunteers in any of the specialist groups needed (orthopedists, pediatricians, neurologists, et cetera) should submit their names to the secretary at any early date.

Dr. Major reported for the committee on Diabetes that the Society will cooperate with the American Diabetes Association in the observance of Diabetes Detection Week, November 11 to 17, 1951.

Dr. Sassen reported on a new plan which had been devised for the examination of those Temporary Disability Benefit cases in which treatment had been prolonged beyond a reasonable time. He asked that members who are willing to examine these cases notifiy him and that the panel will be used in alphabetical order.

BURLINGTON COUNTY

William F. Betsch, M.D., Reporter

A regular monthly meeting of the *Burlington County Medical Society* convened at the Riverton Country Club on October 11, 1951, PRESIDENT T. B. DICKSON, M.D., presiding.

The scientific portion of the program dealt with "Functional Disorders of the Gastro-intestinal Tract", being excellently presented by DR. ALEXANDER RUSH, gastro-enterologist to the Pennsylvania Hospital. An interesting and informative discussion period followed.

Mr. McCray of the State Division of Employment Security briefly explained an improved method that has been adopted for handling those seeking disability insurance.

DR. JOHN R. WOLGAMOT of Moorestown was elected to membership.

CAMDEN COUNTY

James P. Harbeson, M.D., Reporter

The regular monthly meeting of the *Camden County Medical Society* was held on October 2, 1951, in the Camden City Dispensary Building. DR. WALTER A. CRIST presided.

DR. PAUL E. H. KAIN and DR. NATALYA MUSULIN were presented to the society, after taking the oath of membership.

DR. DAVID MCL. GREELEY, Chief, Pediatrics, Cerebral Palsy Clinic, Vanderbilt University; Pediatric Consultant, United Cerebral Palsy Association, Chestnut Hill Program, gave a very interesting and instructive paper on "The Clinical and Administrative Problems of Cerebral Palsy". The paper was discussed by Drs. Max Weimann and Alec Denbo.

Greetings from the State Society were extended to the members by Mr. Richard Nevin, Executive Officer.

Dr. Denbo read a memoir upon the death of DR. C. FRED BECKER, who died July 23, 1951.

Following the acceptance of the report of the treasurer, Dr. Robert Bowen, it was voted that an assessment of $20.00 to each member would be made in addition to the regular society dues. This was done in order to offset the deficit in the treasury at the present time. New members will be exempted from the assessment this year.

Dr. Helen F. Schrack, county society historian, is preparing an album of all the members, and it was decided that each member should submit an appropriate photograph for this purpose.

The society approved the opening of a new blood center in Camden by the Philadelphia Serum Exchange.

Dr. Harold Barnshaw, the Program Committee chairman, extended an invitation to all members to the pre-meeting dinners held in honor of the speaker of the evening.

DR. LUIGI A. PRINCIPATO was elected to active membership. Seventy-eight members were present.

CUMBERLAND COUNTY

Frank J. T. Aitken, M.D., Reporter

The October meeting of the *Cumberland County Medical Society* was held at Richards Farm on October 9, 1951. It was voted to poll the doctors' wives on the formation of an Auxiliary in this county.

Dr. Sherman Garrison, chairman of the Postgraduate committee, reported Friday evening lectures from November 9 to February 8 to be held at the Vineland Armory half-way between Vineland and Millville. The following is the schedule as of this date: (1) Newer Diagnostic Aids and Recent Advances in the Medical Management of Cardiac Disease; (2) Recent Advances in the Prevention and Treatment of the Infectious Diseases of Childhood; (3) Problems in Fluid Balance and Preoperative and Postoperative Surgical Management; (4) Recent Studies in Antibiotic Therapy; (5) Present Status of the Adrenocorticosteroids; (6) Mechanism of Nerve Root Pain and Their Treatment.

MR. RICHARD NEVIN, the personable Executive Officer of the State Society, was presented by DR. E. C. GREENE, President. He briefed the functions of his office and expressed sanguine expectations for the affairs of the State Society in the coming year.

Dr. Garrison, Public Relations committee chairman, presented his project for the coming year. Dr. Albert Kump and Dr. Charles Cunningham were added to this existing committee which will also consider the appointment of a lay executive secretary.

The transfer of DR. PERTIER PENICO was unanimously accepted. DR. HENRY S. BOURLAND filled the scientific session with a discussion of "Precancerous Lesions of the Anus, Rectum and Colon". Dr. Bourland recommended annual routine rectal examinations in adult life and dealt on the relative importance of proctoscopy and x-ray in the detection of early malignancy.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

With ANTHONY J. DIMARINO, M.D., in the chair for the first time, the regular monthly meeting of the *Gloucester County Medical Society* was held at the Woodbury Country Club, September 20, 1951.

After the reading of the minutes, the scientific program was presented. The speaker, J. EDWARD BERK, M.D., assistant professor of Medicine at the Temple University School of Medicine, gave a very interesting and instructive discussion of "Diagnosis of Malignancies of the Esophagus and Stomach". The practical discussion was opened by Joseph F. Hughes, M.D., and continued by many other members.

Frank J. LaRosa, M.D., reporting for Civil Medical Defense stated that a physician was needed to head the effort in this South Jersey area.

Chester I. Ulmer, M.D., Chairman of the Program Committee, spoke of our October Social Session, stating that the speaker would be the news correspondent of the Philadelphia Evening Bulletin, Mr. Melvin Whitcleader. A letter was read from the county Cerebral Palsy organization concerning a future clinic to be set up in Woodbury at which Temple Fay, M.D., would examine the referred patients.

As regards Diabetic Detection week it was decided that each physician would serve on the committee and do the work in his own office. A letter was sent to the Old Age Assistance and the State Board of Child Welfare stating that the members of the county society would like to have the fees paid by those organizations raised to a standard $3 and $5 level.

HUDSON COUNTY

John L. Varriano, M.D., Reporter

Hudson County Medical Society entered upon its new official season on October 2, 1951, when the first meeting of the season took place at Murdoch Hall, Jersey City Medical Center. DR. WILLIAM J. GLEESON presided.

Introduced by Dr. Donnelly, and unanimously adopted, was a testimonial resolution to honor the memory of the late DR. LUCIUS F. DONOHOE of Bayonne, Senior Fellow of The Medical Society of New Jersey, who died on May 23, 1951, at the beginning of the fifty-eighth year of his active membership in Hudson County Medical Society. Dr. Donohoe served as President of The Medical Society of New Jersey in 1924.

Dr. Ginsberg, chairman of the Committee on Postgraduate Medical Education, announced the postgraduate program for the fall season, while Dr. Lewis Schwartz, chairman of the Diabetes Committee, announced the annual Diabetes Detection Drive which will take place throughout the State during the week of November 11-17, 1951. Detection centers will be established in Hudson County, as in the past.

DR. ISRAEL L. CHANIN of Jersey City was elected to active membership.

The following events were announced: Jersey City Community Fund Campaign, of which Dr. Conrad M. Bahnson of Jersey City has been appointed chairman; the Dinner-Dance sponsored by the staff of Margaret Hague Maternity Hospital, in observance of the twentieth anniversary of the opening of the Hospital, on October 6; the second Annual Hobby Show of Hudson County Medical Society and its Woman's Auxiliary, on November 13; and the benefit Theatre Party (Music in the Air), arranged by our Woman's Auxiliary, for the Nurse's Scholarship Fund, on November 28.

Guest speaker on the scientific program was DR. CHARLES P. BAILEY, chief of Thoracic Surgery at Hahnemann Medical College and Hospital in Philadelphia. Dr. Bailey presented an illustrated lecture on "Closed Intracardiac Tactile Surgery". Discussants were Drs. Bortone, Halligan, Jaffin, Leevy, Pinks and White.

HUNTERDON COUNTY

John B. Fuhrmann, M.D., Reporter

The first meeting of the *Hunterdon County Medical Society*, in accordance with our new by-laws, was held on September 25, 1951, with over two-thirds of our members present. PRESIDENT BAMBARA presided and the following committees reported:

Committee from Medical Center reported that Hunterdon County was going ahead with its Medical Center according to the proposed plans although the estimated cost would exceed by a considerable amount what was planned.

Public Relations Committee reported that plans were being formulated for starting an "on-call" system for Sundays in other areas in the county

than Flemington. Such a system has been working successfully for the physicians of Flemington all summer.

The Society went on record as endorsing the Blood Recruitment Program of the American Red Cross, and the Red Cross was so notified.

The Society decided to participate in the Diabetes Detection Drive to be held November 11-17, 1951, by all members doing free urine examinations in their offices, if samples were presented in proper form and with a self-addressed postcard for the results to be mailed.

Meeting adjourned at 11:15 after which a buffet dinner was enjoyed by the members and the members of the Auxiliary.

MERCER COUNTY

W. Laurence Bonnet, M.D., Reporter

A regular meeting of the *Mercer County Component Medical Society* was held in the Executive Offices of The Medical Society of New Jersey, on October 10, 1951.

MAX STRUMIA, M.D., hematologist, Bryn Mawr Hospital, Bryn Mawr, Pa., spoke on "The Hemolytic Anemias".

A Resolution upon the death of DR. HORACE D. BELLIS, a prominent and highly respected surgeon in our community, and an active member of the Mercer County Component Medical Society for many years, was read. The Secretary-Reporter was directed to spread the Resolution upon the minutes of the society, and forward a copy to Mrs. Bellis.

The death of DR. THEODORE V. J. MITSKAS, on October 2, 1951, was reported.

DR. A. DUNBAR HUTCHINSON, Secretary of the Mercer County Component Medical Society for more than 40 years, and DR. CHARLES H. MITCHELL, were elected to emeritus membership in The Medical Society of New Jersey, as of May 1951.

DR. DURANT K. CHARLEROY has been elected Secretary-Treasurer of the New Jersey Society of Anesthesiologists.

DR. DAVID MCL. GREELEY, of Princeton, has accepted an appointment as Assistant Dean, Boston University School of Medicine.

The following physicians were unanimously elected to membership: Associate— DRS. ROGER B. CAMPBELL, ALEXANDER D. KOVACS; BERNARD N. MILLNER, ARIS M. SOPHOCLES, and SHERWOOD VINE.

Active— DRS. JOHN B. GEARREN; EDWARD J. HUMPHREYS on transfer from Ohio), HARVEY SHIPPER and DOUGLAS B. STEVENS (on transfer from New York).

OCEAN COUNTY

Jesse Schulman, M.D., Reporter

The *Ocean County Medical Society* held its regular meeting at the Paul Kimball Hospital in Lakewood on October 10, 1951. The following new officers for 1951-52 were seated: DR. CARMINE PECORA, Toms River, President; DR. RAYMOND A. TAYLOR, Lakewood, Vice-President; DR. ADOLPH TOWBIN, Lakewood, Treasurer; DR. RICHARD GOVE, Brant Beach, Secretary; DR. JESSE SCHULMAN, Lakewood, Reporter.

The new By-Laws were passed on second reading by unanimous vote. The chief changes incorporated therein are those relating to the Judicial Committee and District Judicial Committees as recommended by the State Medical Society.

Upon request from the American Medical Association, Dr. Fred Bunnell of Barnegat was appointed to communicate to them details and information concerning the recent dinner tendered to Dr. Joshua Hilliard of Manahawkin by the Ocean County Historical Society upon the anniversary of Dr. Hilliard's fiftieth year of practice in Ocean County. This material will be used by the A.M.A. in a public relations release along with other similar celebrations held in other states.

The president appointed the following committees and withheld appointment of the remainder till later this month: Advisory Committee to the Medical-Surgical Plan—Drs. Taylor, Schulman, Pecora and Mitchell; Executive Committee—Drs. Dodd, Rinzler, Taylor, Goldstein and Ivory.

Because of the large volume of business accumulated through the summer months when meetings were not held, no scientific session was held.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on September 18, 1951, at the Woman's Club, Paterson. SANDOR A. LEVINSOHN, M.D., President of the Society, presided at the meeting.

A short business session was held, prior to the scientific meeting, at which the following were elected to Active membership: DRS. PETER D. CARRAS, HELGA E. STREITBERG-VOGEL and JOHN J. CASTRONOVO, Paterson; THOMAS C. FLEMING and MILTON ZIMMERMAN, Clifton; J. BRYCE MEARNS, Hawthorne; HAROLD J. SARGENT, Newfoundland; JOHN W. RATCLIFFE, Wayne, and GEORGE V. BRANIGAN, JR., Oakland. The following were elected to Associate membership: EUGENE L. WILD, GORDON HOWE and LEROY CURTIS, Paterson; IRVING BORNSTEIN, Fairlawn, and ALFRED P. GRIFFITH, Preakness.

Resolutions on the deaths of Daniel Edgar Drake, M.D., and Cornelius Vander Cook, M.D., were read and adopted.

Dr. Albert Markel, chairman of the program for the evening, introduced the speaker of the scientific session, IRVING R. ROTH, M.D., attending physician, New York Polyclinic Hospital; consulting cardiologist, Mt. Sinai Hospital; associate in Medicine, P. & S.; professor of Medicine, New York Polyclinic Medical School; consulting physician, Cardiovascular Diseases, U. S. Public Health, Marine Hospitals, New York and vicinity. Dr. Roth's talk, "Medical Indications for Surgical Treatment in Congenital Cardiovascular Defects", was effectively illustrated by lantern slides.

UNION COUNTY

Leslie M. Townsend, M.D., Reporter

DR. LOUIS S. WEGRYN presided at the first meeting of the 1951-1952 season of the *Union County Medical Society* on September 19, 1951, at the new Baby Products Laboratory and Research Building of Johnson and Johnson in Cranford. During the

course of this meeting the following were elected to membership in this society: Dr. Charles W. Boozan, Dr. Emery G. Otvos and Dr. Maude V. Vance, of Elizabeth; Dr. James L. Brady of Linden; Dr. Edmund J. Brogan of Summit; and Dr. Richard S. Rude and Dr. Francis G. Casey, Jr., both of Plainfield.

Mr. Richard I. Nevin, Executive Officer of The Medical Society of New Jersey, brought the greetings of the officers of the State Society to Union County and discussed the responsibilities of his office and activities planned for the coming year. In particular our members were urged to contribute newsworthy items and personal notes to his office for inclusion in the State Society's *News Letter*.

The main feature of the program was a panel presentation of *Prepaid Medical Care* which was given by two of our own members, Dr. C. Hartley Berry and Dr. Henry J. Konzelman, together with Mr. James E. Bryan, Administrator of the Medical-Surgicau Plan of New Jersey, and Mr. Charles A. Siegfried, Associate Actuary of the Metropolitan Life Insurance Company.

Mr. Siegfried traced the historical development of insurance protection first against accidents and then the gradual introduction of benefits to insure against illness of non-accidental origin. Mr. Bryan gave us a history of the Medical-Surgical Plan of New Jersey and cited figures to indicate that payments to New Jersey physician participants of this plan, for services rendered, were in excess of payments for the same services by other prepaid professionally sponsored medical care programs in neighboring states. Without drawing any hard and fast differentiating lines Dr. Konzelman divided our social structure into four groups: (1) the wealthy, (2) upper middle class, (3) lower middle class, and (4) the indigent. He suggested that prepaid medical care plans such as our own Medical-Surgical Plan now do or can be revised to take care of the two middle groups. The small wealthy group need give us no concern but the indigent group, which may not today be a large group, could become so and Dr. Konzelman suggested that municipalities take advantage of the Medical-Surgical Plan of New Jersey in insuring themselves against any known charges on their relief roles. Dr. Berry, who is a surgeon, made a plea for a greater recognition of the value of services given by the internist and medical man in many cases. Prepaid medical care plans have so far given entirely inadequate payment for services involving medical illness or in general for any special diagnostic services.

An interesting discussion period followed in which the four members of the panel answered many questions raised by members of the audience.

A short business meeting followed the panel presentation before adjournment at 11 p. m.

NEW JERSEY ORTHOPAEDIC SOCIETY

William Kruger, M.D., Secretary

The sixth annual meeting of the *New Jersey Orthopaedic Society* was held on October 12, 1951, at the Betty Bacharach Home, Longport. The following officers were elected: President—Dr. Raphael R. Goldenberg, Paterson; President-elect—Dr. Paul J. Finegan, Trenton; Secretary—Dr. William Kruger, Newark; Treasurer—Dr. Harold T. Hansen, South Orange.

The following program was presented:

"Osteochondrosis of the Hip—Perthes Disease"—Dr. John Naame (By invitation)

"Adolescent Deficiency Disease"—Dr. Jarvis M. Smith

"Observations on Intervertebral Disc Injuries"—Dr. Paul J. Finegan

"Arthrodesis of the Wrist"—Dr. A. M. Rechtman

"Resection of Elbow Joint for Arthritis"—Dr. Robert J. Neville

"Functional Anatomy of the Hand" (Moving Picture)—Dr. Robert J. Neville

The discussion was led by Drs. Samuel Kleinberg, Henry Briggs, Raphael R. Goldenberg, Harold W. Smith, and Alfred R. Shands, Jr.

NORTH HUDSON PHYSICIANS SOCIETY

The North Hudson Physicians Society has elected the following officers for 1951-1952:

President: Louis Pentel, M.D., West New York.

Vice-President: Anthony Picollo, M.D., Union City.

Treasurer: Harold Schwarz, M.D., Jersey City

Secretary: Sidney Woltz, M.D., Weehawken.

PAMPHLETS ON FEEDING CHILDREN

The National Association of Mental Health announces the availability of two pamphlets on eating problems in children. One, with that title, is a guide for parents. The other, *Eating Patterns of Children*, is a guide for doctors and nurses. They sell at fifteen cents each, and in large quantities may be bought at $8 a hundred or $6.50 a hundred depending on the quantity. *Eating Problems of Children* is suitable for distribution to parents. The pamphlets may be obtained from the National Association of Mental Health at 1790 Broadway, New York, N. Y. See page 532, this Journal for review of these pamphlets.

WOMAN'S AUXILIARY

PRESIDENT'S MESSAGE

Mrs. Thomas H. McGlade, West Collingswood

The Woman's Auxiliary to The American Medical Association has three New Jersey members on its board and regional committees. Mrs. David B. Allman, Past National President, is the Bulletin Circulation chairman. Mrs. R. John Cottone has been appointed to the Regional Organization committee in charge of the Eastern States. Mrs. Maurice Chesler is the Eastern Region representative on the *Today's Health* committee.

Two of our counties have one hundred per cent subscriptions to the *Bulletin,* our Auxiliary publication. We salute Cape May and Salem Counties for their success and hope other Auxiliaries will follow their example.

The National Organization chairman has set as her goal 10,000 new members for this year. If we of New Jersey follow her slogan of every member get a member, we would double our present membership and still have another one thousand contacts to make before reaching 100 per cent.

Today's Health is another project to which we should devote added energy. Passaic County has the highest number of credit points for subscriptions in the state, with Hudson County second.

Let us make this a year of celebration by our cooperation with our New Jersey members on the national level so they may be proud to submit their reports on *Bulletin,* Membership and *Today's Health.*

FALL WORKSHOP

Mrs. Stuart Zeh Hawkes, Chairman, Press and Publicity

On Monday, October 8, 1951, the Woman's Auxiliary to The Medical Society of New Jersey held it Fall Workshop at the State Society Offices in Trenton. All the county presidents and state chairmen presented their reports in writing to Mrs. Thomas McGlade, President, at a short meeting which preceded the Workshop.

Mrs. Edward H. Dyer of Ventnor was Workshop chairman. The first section on Public Relations was moderated by Mrs. Stewart Alexander of Park Ridge. Mrs. Paul E. Rauschenbach of Paterson, chairman of Civilian Defense, handed out literature and suggested books for our use in dealing with the problems presented by Civilian Defense. Mrs. Rauschenbach suggested that we read the articles appearing in the *Bulletin* dealing with the situation. Our goal should be to educate at least one person in each home to care for the others in case of injury due to enemy attack. The Rural Health chairman, Mrs. Richard Demaree, told of programs complete with films and pamphlets, available for lay audiences. An Auxiliary member must be present when these programs are given, and Mrs. Demaree stressed the fact that no medical questions may be answered by Auxiliary members. An audience reaction report is sent along with the program material and the Auxiliary member responsible for the program is asked to fill in the report and return it. Community Health programs are also available to the public along the same lines. Mrs. H. Irving Dunn, chairman of The Chronically Ill Service, stated that Essex is the only county with a service and that Passaic has surveyed the situation. Mrs. Dunn asked that each county appoint a chairman for this important service. It was stressed that we must educate the public along these lines and cooperate with other health groups. The Legislative chairman, Mrs. Anton Randazzo, is going to direct our interest to that legislation which concerns us personally and as a group, and in a greatly modified way. Mrs. Randazzo firmly believes that the Auxiliary members should form their own sincere opinions on legislative questions. Mrs. Clarence Whims, chairman of Nurse Recruitment, brought a vital message to the group. She stated that we must arouse interest in nursing in the high schools. Each county was asked to appoint a chairman who was extremely interested in nurse recruitment.

Mrs. Whims said that whatever the Auxiliary does in its own county helps to relieve the shortage of nurses in that area. It was brought out that spot announcements on radio and television would help arouse interest in the problem, and each county was requested to have a Nurse Recruitment meeting each year.

Mrs. Frank Forte, Program chairman, said that she has sent program material to each county chairman. Mrs. Forte showed an interesting and informative collection of books and pamphlets on programs for use of those present during intermission. In presenting the Safety chairman, Mrs. Jesse Glazier, Mrs. Alexander said that the State Safety Council has stated that Mrs. Glazier has done more than any other worker. Mrs. Glazier said that child safety is being stressed. Eighty-nine pediatricians have been given pamphlets on that subject for distribution among their patients. The Auxiliary has been asked to pay for the printing of a small leaflet for general use, telling of the danger of poisons around children. Mrs. Glazier feels that this would be a constructive aid to humanity. The county auxiliaries were asked to arrange a ten minute safety program during the year. There is also a quiz program available. Mrs. Alexander thanked those who spoke and told of the need of larger local health units.

Mrs. R. John Cottone moderated the panel on Publications. The *Bulletin* chairman, Mrs. Joseph Mott, asked for 100 per cent subscription to the *Bulletin.* In the absence of Mrs. Samuel Jessurun it was brought out that the keeping of medical history is of vital importance to the county societies. Mrs. D. Leo Haggerty reported on The New Jersey *News-Note* saying that copies have been sent to all members. The possibility of sending the Spring issue to the wives of all physicians in the state was brought up for discussion. The Press and Publicity chairman, Mrs. Stuart Zeh Hawkes, told of sending publicity information to the county chairmen, and urged the chairmen to remember that radio is in their province. Miss Edith Hutchinson, Club Editor of the Newark Evening News, was introduced. Mrs. Banks Baker, chairman of *Today's Health*, hopes to increase the subscriptions to that magazine. Mrs. Cottone reported for Mrs. Oswald Carlander and said that the history is up to date. Finances were reported on by Mrs. Robert Walker, who told of the Auxiliary clerk now installed in Trenton. Thanking her panel members, Mrs. Cottone turned the meeting over to Mrs. Dyer.

Mrs. Dyer moderated the panel on Credentials and Conventions. The Convention chairman, Mrs. Harry Subin told of the Convention and said that the banquet will be on Tuesday this year. Mrs. William Bray, chairman of Credentials, was glad to see that every one present was wearing a badge. Mrs. John Kustrup, Hospitality chairman, anounced that 62 luncheon reservations had been made. The Legislative chairman, Mrs. Don A. Epler, requested that we continue to ask lay groups to sign resolutions opposing socialized medicine. Mrs. John Voss, chairman of Widows and Orphans, said that this year the approach for new members will be different. It will be stressed that this is a helping hand organization, a society formed by doctors to help each other. The Treasurer, Mrs. Asher Yaguda, asked that all counties keep uniform records, uniform bill forms and file cards. These and membership cards are available at this time.

Following the panel discussions, Mrs. Mancuso-Ungaro gave a brief review of what had been stated and then opened a question and answer period. Questions were asked concerning *Today's Health,* also the reduction of county files.

Luncheon was served at the Carteret Club. After luncheon, Mrs. Forte presented Mr. Richard I. Nevin, Executive Officer of The Medical Society of New Jersey. Mr. Nevin called his talk "Here's How"—here's how to speak in public. He said that public speaking successfully achieved is conversation with many rather than few. He added that the ability to speak well is an outward sign of inward grace, it is a habit. Good diction, like charity, begins at home. Sincerity is the one quality necessary in public speaking, what is said must be truly felt by the person speaking. Mr. Nevin made three points for Auxiliary members to carry in their minds, poise, tone and flexibility. He also said that in preparing a speech one must think of the audience and the occasion and what one can say to help and be useful to the audience. He completed his talk with the happy thought that the ability to speak and express oneself comes day by day through experience.

Mrs. David B. Allman, former President of the Auxiliary of the American Medical Association, was next introduced by Mrs. Forte. In speaking on "What We Can Do to Improve the Auxiliary", Mrs. Allman said that good leadership is essential, and that nominating committees must be careful in their choices. Mrs. Allman brought out the fact that there are 1660 Auxiliary members in the state while 5012 physicians belong to county societies and added that we should try to enlarge our membership and also invite wives who are non-members to our meetings. We should have programs that are interesting and

pleasant but we should not forget instructive programs. Mrs. Allman stated that members who are not up to date in dues should not be kept on the rolls. She said that Auxiliary members should consider subscription to the *Bulletin* and *Today's Health* a must. She finished her talk by saying that loyalty and cooperation mean a great deal to the President.

Following the luncheon Mrs. McGlade called a short business meeting.

AUXILIARY REPORTS

Atlantic County

Mrs. Harry Goodman,
Chairman, Press and Publicity

The first fall meeting of the year of the *Woman's Auxiliary to the Atlantic County Medical Society* was held at the Traymore Hotel, October 12, 1951, Mrs. Matthew Molitch, president, presiding.

Dr. Anthony Merendino, President of the Atlantic County Medical Society, extended greetings on behalf of the society.

Plans are being formulated for a dance to be held in January to benefit the Nurse Scholarship Fund.

The Auxiliary was honored by having three outstanding guests for the evening: the President of the State Auxiliary, Mrs. Thomas H. McGlade; the President-Elect, Mrs. Edward Dyer, and Mrs. Maurice Chesler of Salem County, who is the Eastern Regional Director of *Today's Health*. Mrs. McGlade addressed the group on Auxiliary Works and stressed the need of more active nurse recruitment. At this period in world affairs there is a more vital need for nurses than ever before. Twenty-eight scholarships were granted last year in New Jersey.

Preceding the meeting a Dutch Treat Dinner was held in the main dining room of the Tramore. Some twenty women paid honor to the guests of the evening.

Bergen County

Mrs. Winton Johnson,
Chairman, Press and Publicity

The *Woman's Auxiliary to the Bergen County Medical Society* held its opening meeting of the season, a Membership Tea, in the Lounge of the Englewood Hospital Nurses' home on Tuesday afternoon, October 9, 1951. There was a large attendance of regular members and five prospective members. The President, Mrs. Thomas Garrett, of Hackensack, conducted a brief business meeting at which she introduced all her officers and chairmen of standing committees. The annual dinner-dance party was announced for December 8, at The Chimes, in Ridgewood. The spring card party, one major fund-raising activity, will be under the chairmanship of Mrs. Thomas DeCecio, to be held at the Hackensack Woman's Club Building on April 1. Mrs. Edward Sexton, one of our past presidents, outlined the plans for the joint meeting with the county medical society on November 13, at 9 p. m., at Bergen Pines Hospital, when a panel of five experts will present their views and answer questions on the subject of the problem alcoholic.

Mrs. Garrett discussed the aims and purposes of medical auxiliaries, and then asked Mrs. Winton Johnson to discuss the specific goals for this year in this county, as they had been presented in Trenton at the Fall Workshop which was attended by Mrs. Johnson on October 8. Mrs. Johnson reviewed the objectives of each of the standing committees and placed emphasis upon nurse recruitment as one of the most significant activities that Bergen County's group can undertake.

Refreshments were served by the Hospitality committee under the chairmanship of Mrs. William L. Palazzo, with the assistance of Mrs. Anthony Persico, Mrs. Donald Kissinger, and Mrs. Vincent McCauliffe.

Camden County

Mrs. Leland M. Stetser,
Chairman, Press and Publicity

The *Woman's Auxiliary to the Camden County Medical Society*, in addition to having its own past president, Mrs. Thomas H. McGlade as State Auxiliary President, is this year celebrating the twenty-fifth anniversary of its organization. On September 11, 1951, a membership outing was held at Locust Hill Farm, Vincentown, home of Mrs. Penrose H. Thompson. Mrs. William J. Browning, II, and her Hospitality committee were in charge of the affair.

The initial fall meeting was held on October 2, 1951, at the Haddon Fortnightly, Haddonfield, and members from six adjacent counties were entertained at a covered dish luncheon preceding the program. Mrs. Thomas H. McGlade was guest of honor. In celebration of the Auxiliary's silver anniversary, Mrs. Harold F. Westcott, County President, introduced the charter members and the past presidents of the group.

Mrs. Elsa Fort of Merchantville gave a talk on "Beloved Herbs" as an added feature of the afternoon. The Hospitality committee, assisted by the Arts and Hobbies committee, was again responsible for a delicious luncheon and an enjoyable afternoon.

Essex County

Mrs. Louis L. Covino,
Chairman, Press and Publicity

The *Woman's Auxiliary to the Essex County Medical Society* has had a very active summer. Under the leadership of Mrs. John Torppey, President, we have carried on our work through July and August. The Auxiliary sponsors the Blood Bank at the Newark City Hospital and during the summer excellent results were obtained. In July,

98 pints of blood were replaced out of 117 used, and in August, 92 pints were replaced out 107 used. Those volunteers who carried on during the summer were congratulated by Dr. Ferguson. The Nursing Education committee of the Essex County Medical Society, with Dr. Elizabeth Brackett as chairman, and Mrs. Torppey as co-chairman representing the Auxiliary, met with all the Directors of the Nurse Training Schools in Essex County. Mrs. Jesse Glazier, chairman of the lay group, the Essex County Nurse Recruitment committee, was also present. The sole purpose of both groups is to recruit nurses. Dr. Harrold Murray requested the Auxiliary to collect breast milk from women at home and deliver it to the Breast Milk Bank at Babies Hospital. Mrs. Paul Aszody worked two days a week all summer on this project.

Among those from Essex County attending the Fall Workshop on October 8, 1951, at Trenton, and actively participating in the panel discussions were: Mrs. Lodovico Mancusi-Ungaro, who summed up the various ideas presented; Mrs. Frank Forte, State Program chairman; Mrs. Asher Yaguda, State Treasurer; Mrs. Jesse T. Glazier, State Safety chairman; Mrs. Stuart Zeh Hawkes, State Press and Publicity chairman, and Mrs. Don A. Epler, State Resolutions chairman.

Hudson County

Mrs. Sydney Chayes,
Chairman, Press and Publicity

The *Woman's Auxiliary to the Hudson County Medical Society* held its first regular meeting of the season on September 28, 1951, at Murdock Hall, Jersey City. The members gathered for dessert and a social hour preceding the business session, with Mrs. Michael Cerchio and Mrs. Joseph Giannasio as hostesses.

Mrs. Morris Bresev, newly elected President, presided and welcomed a new member, Mrs. Leonard Troast.

Mrs. Irving Dersewitz, Program chairman, introduced Mr. Harry Roth and Miss Virginia Boswell who showed colored films on construction of furniture and the different periods of furniture. This was followed by a display of various fabrics and color schemes to be used in the home.

BOOK REVIEWS

***Eating Patterns of Children: A Guide for Doctors and Nurses.** Nina Ridenour, 1951. Pp.18. National Association for Mental Health, New York 19, N. Y. ($0.15)

***Eating Problems of Children: A Guide for Parents.** Nina Ridenour. 1951. Pp. 18. National Association for Mental Health, New York 19, N. Y. ($0.15).

Down to earth advice on the handling of food problems among children is offered in these two pamphlets. *Eating Patterns* reviews the reasons behind the parent's effort to force the child to eat and offers suggestions which the physician can transmit to the mother or father. There is a practical discussion of the personal problems of the mothers which underlie their anxiety about the child's eating habits. Several pages are devoted to results of research into eating habits.

Eating Problems is a simple, "how-to-do-it" kind of treatise which any adult of average intelligence can follow readily. It gives suggestions about food fads, dawdling, food rejection, letting the child eat dessert first (Dr. Ridenour doesn't object), emotional upsets, convalescence and overeating. The recommendations are condensed on a two-page graphic spread on the last two pages. This pamphlet is a handy brochure for pediatricians, psychiatrists and family doctors to give to new parents. At the quantity cost ($8 a hundred) the pamphlet would seem to be a practice-building, good-will breeding gesture as well as a constructive contribution to child rearing.

RALPH N. SHAPIRO, M.D.

*Also see page 528 this JOURNAL.

A Text-Book of X-ray Diagnosis. By British Authors: in four volumes. Vol. I: Head and Neck. 2d ed.; ed. by S. Cochrane Shanks, M.D., and Peter Kerley, M.D. Pp. 434. Philadelphia, W. B. Saunders Company, 1951. ($12.00)

Dr. Shanks and Kerley have, with the collaboration of numerous prominent radiologists in the British Isles, brought up-to-date the material on the head and neck first published by them some ten years ago.

While the material is presented in much the same manner as in the original volume, the amount of material presented has increased as well as the number of diagrams and roentgenograms. The correlation of the anatomy, the pathology and the x-ray findings is logical and is helpful in interpreting the roentgenograms presented. An excellent feature is the inclusion of some radiographic technic which will better present the material being described. The chapters dealing with intracranial tumors, together with those containing material on ventriculography and encephalography, are especially appealing and instructive. Cerebral angiography is adequately covered and numerous roentgenograms illustrate the material very fully.

Considerable space is devoted to the teeth, as well as the jaws. The material is presented in a practical manner and will appeal to radiologists who see a considerable amount of this type of work. The chapter on the eye is well covered with much attention devoted to the localization of foreign bodies. A final chapter on the radiographic findings in accessory nasal sinuses is a timely subject and is presented in an interesting manner.

The younger radiologist will find this text-book

a very adequate presentation of the material which one should have at hand for interpretation of films of this area. Older radiologists will find this text very helpful for reference and in dealing with the unusual lesions one encounters throughout the skull and accessory structures. It will, I am sure, also be of great value to the other specialists whose work includes these areas, especially the neurosurgeon or the eye surgeon, as well as the ear, nose and throat specialist.

FRANCIS P. CARRIGAN, M.D.

Trephine Technique of Bone Marrow Infusions and Tissue Biopsies. By Henry Turkel, M.D. 4th ed. Pp. 60. Detroit, Trephine Instruments, 1950. ($1.00)

This brochure attempts to show the values of intramedullary infusions, bone-marrow biopsies and visceral biopsies. It stresses the special virtues of the Turkel instrument. Unfortunately many years of observation have proved that intramedullary infusion is of little more than of very occasional practical use. The age old debate of marrow biopsy versus marrow aspiration is not settled by the discussion of the subject in this booklet. The author does emphasize the value of biopsy in the suspected case of myelofibrosis.

The third section of the publication is devoted to the practical aspects of biopsy of such viscera as prostate, muscle, lymph node, breast, and liver. The treatise adds nothing to the already established technics and values of these procedures. It is possible that this especially adapted needle offers some advantages over some other instruments, but as with all other such procedures its value is closely allied with its usage in individual hands.

The last page of the brochure is devoted to a description of a plastic gastro-intestinal tube, also no doubt distributed by the same manufacturer.

LESTER M. GOLDMAN, M.D.

Handbook of Medical Management. M. Chatten, M.D., S. Margen, M.D., and Henry Brainerd, M.D. 2d edition. Pp. 508. University Medical Publishers, Palo Alto, California, 1951. ($3.00)

Since this *vademecum* is certain to get rough handling in the bag or pocket of the physician, it is unfortunate that the publishers did not bind it more substantially. Their idea apparently was to keep the price low in order to make wide distribution possible. It is a meaty manual, and packed into it is an enormous amount of useful, down-to-earth information. The inside back cover features a table of emergency-use drugs. There are chapters on the diseases of each major system. It is up-to-date, including, for example, the latest material on ACTH. While it is not thumb-indexed, rapid page finding is facilitated by an ingenious system of margin markings. This compact little book will easily earn its pocket, desk or bag space.

VICTOR HUBERMAN, M.D.

The Modern Woman's Medical Guide. Edited by Aaron H. Horland, M.D., and Charles S. Steinberg, M.A.; with a foreword by R. B. Robins, Vice-President, American Medical Association. Pp. 393. Cleveland, World Publishing Company, 1951. ($3.50)

The function of our body in health and disease is still a mystery and remains shrouded in a maze of misinformation so far as the general public is concerned. This book makes a valiant attempt to dispel the mystery and the taboos with which the normal physiologic processes are regarded. The editors, Drs. Horland and Charles S. Steinberg, present the subject to the laity in a popular, even elementary discussion.

Some of the chapters are written by eminent clinicians, scientists and social workers, as, for example, Dr. Emil Novak, the Doctors Hannah and Abraham Stone, and others. Of special interest is the chapter by Dr. W. C. Menninger on "Understanding Yourself". The nature of personality and the importance of unconscious personality conflicts are discussed.

Other chapters are reprinted from such authoritative sources as: Manual of the Metropolitan Life Insurance Company; the American Cancer Society; Planned Parenthood Federation of America; publications from the Children's Bureau on Prenatal Care; publications of the New York State Department of Mental Hygiene; publications of the American Medical Association and from other popular organizations and books.

The problems discussed concern themselves with the physiologic, emotional and mental development of the woman, from adolescence to maturity, marriage and child bearing. A sincere effort is made to acquaint the young woman with the many facts of her physiologic and emotional endowments and to guide her steps in achieving self-expression in marriage and motherhood. Difficulties encountered by various individuals are explained and a method for overcoming them is suggested. The menopause is discussed in a chapter hopefully entitled "The Golden Age".

On the whole, the book justifies its title: "The Modern Woman's Medical Guide".

RITA S. FINKLER, M.D.

Patterns of Panic. By Joost A. Meerloo, M.D. Pp. 120. New York, 1951. The International Universities Press.

The word "panic" is here used in its European sense of collective terror or mob excitement rather than in its American sense of devastating individual anxiety. Dr. Meerloo points out how modern technics of communication (radio and so forth) can be used either to aggravate panic or to control it. He suggests a somewhat oversimplified formula for the prevention of panic. Components of this prescription are: (1) preparation of the public to expect the catastrophe; (2) mechanisms for distribution information; and (3) organized action. The psychodynamics of group panic are considered briefly, emphasis being placed on the ecstatic sense of power which participation in mob excitement affords to the participants. The more fundamental

dynamic factors are not well explored, but since the book is written for laymen, perhaps this is just as well.

He confuses the reader, I think,—or at least he confuses me—in his discussion of the role of discipline and leadership. On one page we are told that dictatorship tends to breed panic because as soon as it wavers there is a violent turning on the leader. In another place, Dr. Meerloo says that "in time of fear, every democracy must concentrate its leadership on a chosen personality". And it is hard to tell whether the author believes that strong discipline or loose discipline is more likely to prevent panic.

The book is certainly not a handy manual for civilian workers who might be mobilized in case of panic. The parts that are practical are obvious, and the thoughts that are more subtle are not readily translated into practice. But it does furnish a useful springboard for thinking and talking about the general subject of group panic.

HERBERT BOEHM, M.D.

The Kidney: Medical and Surgical Diseases. By Arthur C. Allen, M.D. Pp. 583, 1115 illustrations. New York, Grune & Stratton, 1951. ($15.00)

A great deal of confusion exists regarding diseases of the kidney. It is important that we have a text with clear cut descriptions of kidney lesions the knowledge of which has been brought up to date. In this Dr. Allen has very well succeeded. He correlates the clinical manifestations with the pathologic changes.

In the chapter on embryology, which is well-illustrated, his concept of the development of the nephron differs from accepted theories, in that he believes the proximal and distal portions of the nephron develop as a single unit rather than a fusion of two units. He takes up the anatomy and the normal and abnormal physiology of the kidneys.

He discusses the pathology of each element of the kidney separately so that the diseases of the glomerulus, the diseases of the tubules, and the diseases of the vessels of the kidneys are expressed in separate categories, correlating the clinical and pathologic aspects of these diseases in a very satisfactory manner. He points out the artefacts that are possible during the process of staining and preparation of the material as well as post-mortem changes that take place in the kidney. These are sometimes mistaken for pathologic entities.

The chapter on uremia covers the etiology, clinical manifestations, pathogenesis and treatment. There is also a section on malformations and tumors of the kidneys, including a complete and up-to-date classification of benign and malignant kidney tumors. The publishers have done a splendid job in reproducing the wonderful illustrations so ably prepared by Dr. Allen.

In general this volume is a valuable addition to the library of the general practitioner, urologist, internist and pathologist as a ready reference on medical and surgical diseases of the kidney.

SAMUEL A. GOLDBERG, M.D.

Clinical Unipolar Electrocardiography. By Bernard S. Lipman, M.D., and Edward Massie, M.D. Pp. 232. Chicago, Year Book Publishers, Inc., 1951. ($5.00)

The authors describe unipolar technic and unipolar terminology in unequivocal language and then discuss the physiologic principles of the electrical phenomenon of heart muscle which produces the electrocardiogram. The five basic unipolar ventricular patterns are included in this discussion. Then there follow chapters on the electrical position of the heart, ventricular enlargement, bundle branch block, myocardial infarction, abnormal electrocardiographic patterns and general comments on interpretation.

Although complex and detailed discussions of the principles of physics and cardiac physiology are dealt with, the authors have succeeded in reducing this discussion to the simplest of terms. The book accomplishes the purpose of presenting a complete monograph in practical and illustrative form for those inexperienced in the field of V lead electrocardiography.

EDWARD C. KLEIN, JR., M.D.

Management of Celiac Disease. By S. V. Haas, M.D., and M. P. Haas, M.D. (Pp. 188.) Philadelphia, J. B. Lippincott Co., 1951. ($5.00)

The senior author has established a reputation in celiac disease for his introduction of the banana in treatment and, because of his wide experience in the observation and treatment of this disease. This monograph attempts to give a complete picture of various phases of celiac disease, emphasizing a clinical approach with a simple regime in management. Unfortunately, the book does not give a complete picture of the subject. The first 114 of its 154 pages of text are devoted to a review of the literature. Actually this is simply an uncritical recording of conflicting observations and opinions.

In the attempt toward simplification the writer refuses to recognize fibrocystic disease of the pancreas as a clinical entity separate from celiac disease. Such an unorthodox view can be argued in a scientific paper, but is hardly in place in an authoritative monograph.

In discussing etiology, the views of Kunstadter are presented. Kunstadter postulated that some cases simulating celiac disease were really cases of milk allergy. The authors make the startling statement that such views are not pertinent because celiac diets substitute protein milk for cow's milk.

The last forty pages of the monograph are devoted to the authors' own observations and management of celiac disease. This section is well presented and from it the practitioner can secure a simple, practical understanding of the diagnosis and management. However, one will get more complete information on the subject of the celiac syndrome from a number of texts or from the many excellent articles published in recent years. There is a complete and excellent bibliography.

WILLIAM H. FOST, M.D.

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV November, 1951 No. 11

THE PRESENT-DAY USAGE OF PNEUMOTHORAX IN THE TREATMENT OF PULMONARY TUBERCULOSIS

John H. Skavlem, M.D., California Medicine, December, 1950.

The patient with tuberculosis must cure himself and the final conquest of the tubercle bacilli is a victory of the body itself. Physicians guide and assist the forces of the body to resist the multiplication and spread of the invading germs. Rest and good nutrition remain basic in the treatment. The ideal cure of any disease is to eradicate it with the least resulting loss of function of the involved tissue or organ. Surgical measures involving resection of parts and permanent loss of function represent defeat of medicine. This is not the fault of the surgeon but of the limitations of medical knowledge which allow the disease to reach a stage which demands the serious loss of function to win life.

Research for the cure of tuberculosis is and must remain the realm of prevention, of early diagnosis, and of specific bactericidal agents to check the progress of the disease. Yet, until those goals are achieved, surgical measures cannot be abandoned and efforts to improve them must continue.

Pneumothorax, as an active definitive treatment for pulmonary tuberculosis, has been widely used. The patient well chosen for this treatment is one whose tuberculous lesion will heal more quickly and surely when the lung is relaxed by the introduction of air in the pleural space. The selection may depend upon the patient himself—his race, color, temperament, and his ability or willingness to take rest. The lesion should be in considerable part an exudative one capable of being absorbed or of healing with minimal scar. Any cavity present (and usually cavitation is demonstrable by X-ray studies) should be one which will permit of closure by relaxation of the surrounding lung tissue. Tubercle bacilli in the sputum is evidence of necrosis and ulceration, even though no cavity is observed on X-ray films. In the area to be collapsed, there must be no evidence of bronchial obstruction which cannot be relieved. The significance of bronchial lesions in the area as well as the method of dealing with the thin-walled cavity which indicates bronchial obstruction has changed since the advent of streptomycin and other new drugs. Bed rest for three months to study the ability of the body to cope with the lesion should be tried before pneumothorax is undertaken, unless circumstances develop which indicate unequivocally that bed rest alone is inadequate. For each patient it must be decided whether or not streptomycin or other drugs shall be added to bed rest in this period. At the end of three months of observation and treatment, all findings must be reviewed to determine whether or not the healing process is adequate. By withholding pneumothorax in cases in which there are toxic manifestations the incidence of empyema in connection with the procedure has been greatly reduced. Streptomycin and other new drugs have reduced the time necessary to overcome toxic manifestations. Results of pneumothorax for Negroes are not as good as for white patients. The hazards are greater as they are for patients with diabetes. The judicious use of insulin and streptomycin in the latter group makes the procedures safer and more effective.

The effectiveness of pneumothorax in a case can sometimes be quickly determined by X-ray studies. If the lung is completely surrounded by air, with no pleural adhesions and with evidence of cavity closure, good results seem probable. If there are broad adhesions preventing relaxation of tissue or cavity closure, the procedure is not likely to be

effective. Between these limits are all gradations of conditions. Each patient must be studied individually, perhaps with thoracoscopic observations. The procedure can always be modified or stopped.

Fluid in the pleural space during pneumothorax treatments creates a difficult problem. It is agreed that fluid persisting for weeks, increasing in amount or becoming turbid or bloody, or giving rise to toxic signs, or showing evidence of pyogenic nature, calls for termination of pneumothorax. The transitory presence of fluid after certain procedures, such as pneumonolysis, must be taken into consideration.

At times, circumstances compel continuance of pneumothorax in cases in which it is not fully satisfactory—cases in which bed rest has proved to be inadequate. The cavity may remain open and the sputum positive for tubercle bacilli. A cavity in the lung is not feared simply as an anatomic hole, but because it offers an environment —extra moisture, extra oxygen, less blood supply, less movement—in which the tubercle bacilli can live and multiply. From this focus, there are open bronchial avenues of spread within the lungs and elsewhere to trachea, larynx, mouth cavity, stomach, and intestines. A sterlized cavity can harm only by reducing function by loss of tissue. No effort should be spared in search for methods and means to sterilize permanent cavities.

The time for voluntary termination of pneumothorax is often discussed and variously answered. Often the answer is dictated by events. The lung gradually expands, the normal part first, then the involved part, until the pneumothorax space becomes so small that the treatment must be stopped. It is to be hoped that this process will be orderly and delayed until the lesion has become inactive, the cavity closed, and the sputum negative for tubercle bacilli. This may take from one to three years in the best of circumstances. If pneumothorax is continued too long, the lung may become incompletely expansible. This can best be avoided by watching the ability of the lung to expand and contract and the thickness of the visceral pleura. The patient's willingness, ability, and opportunity to carry on with extra rest and physical limitations must be weighed in the final decision.

Among physicians treating tuberculosis there is uniform agreement that pregnancy in a patient with active pulmonary tuberculosis in whom the disease is well controlled offers no serious hazard to life or to the expectancy for recovery. If the disease is not controlled, then pregnancy is a definite hazard to recovery and to life. Some form of collapse therapy may then be necessary. Pneumothorax, if it can be effectively induced, then is the method of choice.

The treatment of pulmonary tuberculosis is not a skirmish, not a battle, not a siege, but a long-drawn-out war with activity, on many fronts. Treatment must be based on strategic plans to suit the patient for years, perhaps for a lifetime. The plan must be to eradicate the infection while preserving at a maximum the function of the diseased part. Extension of the disease and complications in parts of the body must be dealt with quickly. Pneumothorax is the most flexible and versatile method of collapse therapy because it can be lessened, enlarged, shifted from side to side, applied to both sides, combined with any other form of treatment—rest, drug, antimicrobic, or surgical—or stopped at will. A treatment with such long and widespread effective usage, the value and limitations of which have been determined, is one to be retained and used in combination with all other forms of treatment. As methods improve to prevent tuberculosis and to diagnose and treat it early when it does occur, progress toward the goal of minimum sacrifice of tissue or function will eventually reduce the need for the clumsy methods of collapse and resection. The last of these methods to be abandoned will be the flexible, versatile, pneumothorax, narrowed in its application but effective to the last well-chosen case.

SUPPLIED BY
NEW JERSEY TRUDEAU SOCIETY
the medical section of the
NEW JERSEY TUBERCULOSIS LEAGUE
15 East Kinney Street, Newark 2, New Jersey

(The Council on Pharmacy and Chemistry of the American Medical Association has adopted the following statement of Actions and Uses and of Dosage for publication in connection with a description of Banthine Bromide for inclusion in New and Nonofficial Remedies)

METHANTHELINE BROMIDE.—*Banthine® Bromide (Searle)*

β-diethylmethylaminoethyl 9-xanthenecarboxylate bromide

Actions and Uses.—Methantheline bromide, a parasympatholytic agent, produces both the peripheral action of anticholinergic drugs such as atropine and the ganglionic blocking action of drugs such as tetraethylammonium chloride. Tolerated amounts of methantheline bromide exert side effects typical of atropine-like drugs, but cause less tachycardia, and also less postural hypotension than does tetraethylammonium chloride. Toxic doses produce a curare-like action at the somatic neuromuscular junction.

Clinical studies indicate that the drug effectively inhibits motility of the gastrointestinal and genitourinary tracts and, to a variable degree, diminishes the volume of perspiration and salivary, gastric and pancreatic secretions. It also decreases mucoprotein secretion. Like atropine, it produces mydriasis and cycloplegia when applied locally to the eye or administered systemically, but until more clinical evidence becomes available, its local use for this purpose is not recommended. The value of the drug for preventing abnormal cardiac reflexes through the vagus during thoracic surgery, or as an agent for routine preoperative medication in place of atropine, requires further investigation before final conclusions can be reached.

Methantheline bromide is indicated for clinical use whenever anticholinergic spasmolytic action is desired, provided it is not contraindicated because of its atropine-like characteristics or because of a patient's intolerance to the unavoidable side effects of such therapy. It is useful as an adjunct in the management of peptic ulcer, chronic hypertrophic gastritis, certain less specific forms of gastritis, pylorospasm, hyperemesis gravidarum, biliary dyskinesia, acute and chronic pancreatitis, hypermotility of the small intestine not associated with organic change, ileostomies, spastic colon (mucous colitis, irritable bowel), diverticulitis, ureteral and urinary bladder spasm, hyperhidrosis or control of normal sweating which aggravates certain dermatoses, and control of salivation.

Methantheline bromide produces some degree of cycloplegia and mydriasis in therapeutic doses and therefore should not be administered to patients with glaucoma. It sometimes decreases the ability to read fine print. Xerostomia (dryness of the mouth) is a common, sometimes transient, side effect. Urinary retention of varying degree may occur in elderly male patients with prostatic hypertrophy, and some patients may have difficulty emptying the rectum. Patients with edematous duodenal ulceration may experience nausea and vomiting during initial administration of the drug. These patients should take only liquids during the institution of drug therapy. All patients should be advised of the possible occurrence of side effects. Overdosage sufficient to produce a curare-like action may be counteracted by prompt subcutaneous injection of 2 mg. of neostigmine methylsulfate.

Dosage.—Methantheline bromide is administered orally or parenterally by either the intramuscular or intravenous route. Parenteral administration is not advised for patients able to take the drug orally. The average initial adult dose, oral or parenteral, is 50 mg. For patients with considerable intolerance, 25 mg. may be employed. In the management of peptic ulcer, a beginning schedule of 50 mg. three times daily before meals and 100 to 150 mg. on retiring is suggested. However, the usual effective dose is 100 mg. four times daily, although some patients may require more or less than this amount. The dosage may be increased to tolerance, using dryness of the mouth as a guide, and adjusted to meet the individual response of patients. Maintenance dosage in peptic ulcer is usually considered to be about one-half the therapeutic level. In the management of other hypermotile or hypersecretory states, the dosage should be adjusted to the smallest amount which will relieve the symptoms. When spastic conditions are secondary to inflammatory or other organic lesions, therapy directed toward the cause should be employed whenever possible.

G. D. SEARLE & CO.
Tablets Banthine Bromide: 50 mg.
Ampuls Banthine Bromide: 50 mg.

The "estrogen preferred by us is 'Premarin,' a mixture of conjugated estrogens, the principal one of which is estrone sulfate."

Hamblen, E. C.: North Carolina M. J. 7:533 (Oct.) 1946.

In treating the menopausal syndrome with "Premarin," Perloff* reports that "Ninety-five and eight tenths per cent of patients treated with 3.75 mg. or less daily obtained complete relief of symptoms"; also, "General tonic effects were noteworthy and the greatest percentage of patients who expressed clear-cut preferences for any drug designated 'Premarin.'"

Thus, the sense of "well-being" usually imparted represents a "plus" in "Premarin" therapy which not only gratifies the patient but is conducive to a highly satisfactory patient-doctor relationship.

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg. and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

*Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949.

"PREMARIN"®

"Premarin" contains estrone sulfate plus the sulfates of equilin, equilenin, β-estradiol, and β-dihydroequilenin. Other α- and β-estrogenic "diols" are also present in varying amounts as water-soluble conjugates.

Estrogenic Substances (water-soluble) also known as Conjugated Estrogens (equine)

Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.

Ayerst

5003 R

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET
SITUATIONS, ETC.

$3.00 for 25 words or less: additional words 5c each

Forms Close 20th of the Month
CASH MUST ACCOMPANY ORDER

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market

Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

FOR RENT—Furnished office suite in Irvington, N. J. Ideally situated; excellent opportunity for general practitioner. All facilities furnished. Write Box M, c/o THE JOURNAL.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No Good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

DOCTOR'S OFFICE FOR RENT in Elizabeth, New Jersey—4 rooms, lavoratory. Main street in residential-business section. Established as physician's office for many years. Excellent location for general practitioner or specialist. ELizabeth 5-0156 or Box I, c/o THE JOURNAL.

FOR RENT—ONE JOHNSON AVENUE, corner Clinton Avenue, Newark. Ideal location. Offices of recently deceased physician. Available immediately, with or without complete equipment. Call evening BIgelow 8-4749.

FOR RENT — Established medical office for 25 years; 4 rooms—waiting room shared with dentist. Central location. Doctor moving to own home and office. 98 Broad St., Bloomfield, BL 2-8634 or write Box O, c/o THE JOURNAL.

STONE CORNER RESIDENCE — BROOKLAWN (near Camden), New Jersey. Close to large apartment project and school. Ideal for professional offices. Living quarters. Ample parking. Less than $6,000.00 down. Already financed. Phone Woodlawn 3-5200. FIRST MORTGAGE SERVICE CO., 539 Market St., Camden 2, N. J.

WANTED AS SOON AS POSSIBLE—Young well-trained physician interested in internal medicine to become member, either full time or part time, of medical department of well known industrial organization in Middlesex County, New Jersey. Salary open. Send resume and photograph. All applications confidential. Write Box J, c/o THE JOURNAL.

FOR SALE—Complete equipment of deceased physician. Excellent condition. Inquire Bigelow 8-4749.

Relationship of Stress to Autonomic Lability

Studies in psychosomatics have shown that functional disorders often are a result of the patient's inability to adjust to emotionally stressful situations (stressor factors).

Nervous tension and chronic anxiety, discharged through a labile Autonomic Nervous System, can cause somatic disturbance. [1,2] Such states may involve any one of the organ systems or several at one time. [1,3] The outline below is designed to relate gastrointestinal and cardiovascular symptomatology to the exaggerated response of the autonomic nervous system.

	Physiologic Effects of Autonomic Discharge	
	Sympathetic	Parasympathetic
Gastro-intestinal System	Hypomotility Intestinal Atony Hyposecretion Reduced salivation	Hypermotility Gastrointestinal spasm Hypersecretion
Cardio-vascular System	Rapid heart rate Peripheral vaso-constriction	Slow heart rate Vasodilatation
Functional Manifesta-tions	Palpitation Tachycardia Elevated blood pressure Dry mouth and throat	Heartburn Nausea-vomiting Low blood pressure Colonic spasm

The data here tabulated is from references 3,4,5,6,7, given below.

When the clinical picture is suggestive of functional disorder, the diagnosis is supported by the presence of the following indications of autonomic lability:

Variable Blood Pressure
Body Temperature Variations
Changing pulse rate
Deviations in B. M. R.
Exaggerated Cold Pressure Reflex
Oculo-Cardiac Reflex Abnormalities
Glucose Tolerance Alterations

Therapy in these cases is directed toward: 1) relieving the somatic disturbance to prepare the patient for psychotherapy*; 2) guidance in making adjustment to stressful situations and correction of unhealthy attitudes.

*Drug treatment using adrenergic and cholinergic blocking agents in conjunction with sedatives. [8,9,10]

1. Ebaugh, F.: Postgrad. Med. *4:* 208, 1948. 2. Wilbur, D.: J.A.M.A. *141:* 1199, 1949. 3. Williams, E. and Carmichael, C.: J. Nat'l. Med. Assoc. *42:* 32, 1950. 4. Goodman, L. and Gilman, A.: The Pharmacological Basis of Therapeutics, The Macmillan Co., 1941. 5. Katz, L. et al: Ann. Int. Med. *27:* 261, 1947. 6. Weiss, E. et al: Am. J. Psychiat. *107:* 264, 1950. 7. Alvarez, W.: Chicago Med. Soc. Bulletin, 581, 1950. 8. Rakoff, A.: A Course in Practical Therapeutics, Williams and Wilkins, 1948. 9. Karnosh, L. and Zucker, E.: A Handbook of Psychiatry, C. V. Mosby Co., 1945. 10. Harris, L.: Canad. M.A.J. *58:* 251, 1948.

CHANGE OF ADDRESS

In the event of a change of address or failure to receive THE JOURNAL regularly fill out this coupon and mail at once to

THE MEDICAL SOCIETY OF NEW JERSEY, 315 W. State St., Trenton 8, N. J.

Change my address on mailing list

From .....

To .....

Date ..... *Signed* ..... M.D.

Rapid Clinical Response

PARKE, DAVI

with

Chloromycetin®

MEANS EARLY RETURN TO NORMAL ACTIVITIES

Continuity of treatment with well-tolerated CHLOROMYCETIN produces a rapid clinical response in a wide variety of bacterial, viral, and rickettsial diseases. Convalescence is smooth, and an early return of the patient to his normal activities may be anticipated.

CHLOROMYCETIN (chloramphenicol, Parke-Davis)
is supplied in the following forms:

CHLOROMYCETIN Kapseals,® 250 mg., bottles of 16 and 100.

CHLOROMYCETIN Capsules, 100 mg., bottles of 25 and 100.

CHLOROMYCETIN Capsules, 50 mg., bottles of 25 and 100.

CHLOROMYCETIN Ophthalmic Ointment, 1%, ⅛ ounce collapsible tubes.

CHLOROMYCETIN Ophthalmic, 25 mg. dry powder for solution, individual vials with droppers.

COMPANY

Now 1 symbol of quality

PABLUM

for 4 precooked cereals

Now Pablum Mixed Cereal (the original Pablum®) shares its heritage of quality with *three other cereals*—Pablum Oatmeal (formerly Pabena®), Pablum Rice Cereal and Pablum Barley Cereal.

An improved manufacturing process brings out the rich, full-grain flavor of all the Pablum cereals; helps them to retain freshness.

The new Pablum packages, with the exclusive "Handy-Pour" spout, provide superior convenience and protection.

This newly-created Pablum family represents Mead's continuing efforts to provide the medical profession with infant cereals they can prescribe with confidence.

For greater variety of flavor and wider clinical usefulness, specify the *four* Pablum cereals.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

INDEX NUMBER

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Entered as second-class matter, September 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879

VOL. 48, No. 12 DECEMBER, 1951 Subscriptions, $3.00 per Year
Single Copies, 30 Cents

CONTENTS—Pages 537 to 584

Place of Publication, Printing and Mailing:
116-118 Lincoln Ave., Orange, N. J.

Editorial and Executive Offices of the Society:
315 West State St., Trenton 8, N. J.

Address all communications for *publication* to editorial office at 315 West State St., Trenton 8, N. J.
Telephone Trenton 4-3154

Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918.

THE MEDICAL SOCIETY OF NEW JERSEY

Founded July 23, 1766

PLACE OF PUBLICATION, PRINTING AND MAILING, 116 LINCOLN AVE., ORANGE, N. J.
EXECUTIVE AND EDITORIAL OFFICES, 315 WEST STATE ST., TRENTON 8, N. J. Tel. Trenton 4-3154

MR. RICHARD I. NEVIN, *Executive Officer*..... Trenton
MRS. EDITH L. MADDEN, *Administrative Secretary and Convention Manager*.....Trenton
HENRY A. DAVIDSON, *Editor*.....Trenton
MRS. MIRIAM N. ARMSTRONG, *Assistant Editor*.....Trenton
IRVING P. BORSHER, *Medical Director*, Distribution of Medical Care.....Newark

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY
MEDICAL-SURGICAL PLAN OF NEW JERSEY
790 BROAD ST., NEWARK, N. J.
Tel. MArket 2-6390

IRVING P. BORSHER, *Medical Director*

OFFICERS

President, SIGURD W. JOHNSEN .....Passaic
President-Elect, HARROLD A. MURRAY .....Newark
First Vice-President, HENRY B. DECKER .....Camden
Second Vice-President, ELTON W. LANCE .....Rahway
Secretary, MARCUS H. GREIFINGER .....Newark
Treasurer, GEORGE J. YOUNG .....Morristown

TRUSTEES

DAVID B. ALLMAN, *Chairman* (1953) .....Atlantic City
REUBEN L. SHARP, *Secretary* (1954) .....Camden
SIGURD W. JOHNSEN .....Passaic
HARROLD A. MURRAY .....Newark
HENRY B. DECKER .....Camden
ELTON W. LANCE .....Rahway
MARCUS H. GREIFINGER .....Newark
GEORGE J. YOUNG .....Morristown
ALDRICH C. CROWE .....Ocean City
WILLIAM F. COSTELLO (1953) .....Dover
WILLIAM C. WILENTZ (1953) .....Perth Amboy
JOSEPH G. COLEMAN (1953) .....Hamburg
L. SAMUEL SICA (1954) .....Trenton
DAVID W. GREEN (1954) .....Salem
J. LAWRENCE EVANS (1954) .....Woodcliff
ROYAL A. SCHAAF (1952) .....Newark
WILLIAM E. DODD (1952) ..... Beach Haven
C. BYRON BLAISDELL (1952) ..... Asbury Park

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....FRANCIS C. WEBER, Newark (1954)
Second District (Sussex, Bergen, Hudson and Passaic Counties).....VINCENT P. BUTLER, Jersey City (1953)
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....JACOB J. MANN, Perth Amboy (1952)
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....DANIEL F. FEATHERSTON, Asbury Park (1954)
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....CHESTER I. ULMER, Gibbstown (1953)

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Delegates

JOSEPH F. LONDRIGAN (1953) .....Hoboken
WILLIAM F. COSTELLO (1953) .....Dover
J. WALLACE HURFF (1952) .....Newark
DAVID B. ALLMAN (1952) .....Atlantic City
ELMER P. WEIGEL (1952) .....Plainfield
L. SAMUEL SICA (1952) .....Trenton

Alternates

ALBERT B. KUMP (1953) .....Bridgeton
WALTER F. PHELAN (1953) .....Elizabeth
JOHN H. ROWLAND (1952) .....New Brunswick
ALDRICH C. CROWE (1952) .....Ocean City
HERSCHEL PETTIT (1952) .....Ocean City

DELEGATES TO OTHER STATES

Delegates

New York—ALDRICH C. CROWE (1952) .....Ocean City
Connecticut—C. BYRON BLAISDELL (1952) .....Asbury Park

Alternates

New York—D. WARD SCANLAN (1952) .....Atlantic City
Connecticut—BLACKWELL SAWYER (1952) .....Toms River

OFFICERS OF SCIENTIFIC SECTIONS

Allergy

EDWARD E. SEIDMON, *Chairman* ..... Plainfield
LEWIS W. BROWN, *Secretary* .....Newark

Anesthesiology

D'ARCY C. CLARIE, *Chairman* .....Leonia
DURANT K. CHARLEROY, *Secretary* .....Trenton

Chest Diseases

SAMUEL COHEN, *Chairman* .....Jersey City
WILLIAM C. DOUGLASS, *Secretary* .....Bernardsville

Clinical Pathology

EDWIN H. ALBANO, *Chairman* .....East Orange
WILLIAM W. HERSOHN, *Secretary* .....Atlantic City

Dermatology

BART M. JAMES, *Chairman* .....Newark
EMANUEL M. SATULSKY, *Secretary* .....Elizabeth

Eye, Ear, Nose and Throat

ALBERT F. MORICONI, *Chairman* .....Trenton
WILLIAM H. HAHN, *Secretary* .....Newark

Gastro-Enterology and Proctology

SAMUEL RUBIN, *Chairman* .....Asbury Park
S. WILLIAM KALB, *Secretary* .....Newark

General Practice

EDWIN ROSNER, *Chairman* .....Collingswood
SIDNEY D. BECKER, *Secretary* .....Keyport

Heart Diseases

LOUIS F. ALBRIGHT, *Chairman* .....Asbury Park
HAROLD K. EYNON, *Secretary* .....Camden

Medicine

J. JAMES SMITH, *Chairman* .....Elizabeth
CLARENCE B. WHIMS, *Secretary* .....Ventnor

Metabolism

JOSEPH SKWIRSKY, *Chairman* .....Newark
GEORGE M. KNOWLES, *Secretary* .....Hackensack

Neuropsychiatry

ROBERT S. GARBER, *Chairman* .....Trenton
GEORGE W. HAGER, JR., *Secretary* .....Camden

Obstetrics and Gynecology

BENJAMIN DAVERSA, *Chairman* .....Spring Lake
JOSEPH E. MOTT, *Secretary* .....Paterson

Orthopedics

PAUL J. FINEGAN, *Chairman* .....Trenton
RAPHAEL R. GOLDENBERG, *Secretary* .....Paterson

Pediatrics

MARTIN A. QUIRK, *Chairman* .....Red Bank
MARTIN GREEN, *Secretary* .....Atlantic City

Radiology

BENJAMIN COPLEMAN, *Chairman* .....Perth Amboy
NICHOLAS G. DEMY, *Secretary* .....Plainfield

Rheumatism

IRVING L. SPERLING, *Chairman* .....Newark
W. ALLAN WRIGHT, *Secretary* .....East Orange

Surgery

STUART Z. HAWKES, *Chairman* .....Newark
H. WESLEY JACK, *Secretary* .....Camden

Urology

ROBERT L. McKIERNAN, *Chairman* .....New Brunswick
IRWIN MARKOWITZ, *Secretary* .....Jersey City

STANDING COMMITTEES

Finance and Budget

David B. Allman, *Chairman* (1953) .....Atlantic City
Anthony J. Conty (1952) .....Union City
Herschel Pettit (1953) .....Ocean City
William F. Costello (1955) .....Dover
Luke A. Mulligan (1956) .....Leonia
L. Samuel Sica (1957) .....Trenton
George J. Young, *Ex-Officio* .....Morristown

Medical Defense and Insurance

J. Wallace Hurff, *Chairman* (1953) .....Newark
Joseph J. Ruvane (1952) .....Jersey City
Arthur J. Ganley (1952) .....East Orange
George T. Tracy (1953) .....Beverly
Rudolph C. Schretzmann (1953) .....Englewood
Benjamin F. Slobodien (1954) .....Perth Amboy
James F. Gleason (1954) .....Ventnor

Publication

J. Lawrence Evans, Jr., *Chairman* (1954) .....Leonia
Joseph E. Mott, (1952) .....Paterson
Ralph M. L. Buchanan (1953) .....Phillipsburg
Marcus H. Greifinger, *Ex-Officio* .....Newark
Henry A. Davidson, *Adviser* .....Trenton

Scientific Work

First District—John W. Gray (1954) .....Newark
Second District—George Ginsberg (1955) .....Hoboken
Third District—Patrick H. Corrigan (1956) .....Trenton
Fourth District—S. Emlen Stokes (1952) .....Moorestown
Fifth District—Harold S. Davidson (1953) ....Atlantic City

Honorary Membership

Royal A. Schaaf, *Chairman* (1954) .....Newark
Joseph F. Londrigan (1952) .....Hoboken
Spencer T. Snedecor (1953) .....Hackensack

Woman's Auxiliary

Lewis C. Fritts, *Chairman* (1953) .....Somerville
Norman Nathanson (1952) .....Long Branch
Baxter H. Timberlake (1953) .....Ventnor
Vincent P. Del Duca (1954) .....Camden
William E. Bray (1954) .....Pemberton

Medical Education

Francis M. Clarke, *Chairman* (1953) .....New Brunswick
Henry B. Decker (1952) .....Camden
Stuart Z. Hawkes (1954) .....Newark
Samuel A. Cosgrove (1955) .....Jersey City
Ernest F. Purcell (1956) .....Trenton

Annual Meeting

Asher Yaguda, *Chairman* (1954) .....Newark
Harrold A. Murray (1952) .....Newark
Joseph P. Donnelly (1952) .....Jersey City
Johannes F. Pessel (1953) .....Trenton
William W. Hersohn (1953) .....Atlantic City

Scientific Program

Johannes F. Pessel, *Chairman* .....Trenton
Chairmen and Secretaries of the Scientific Sections

Scientific Exhibit

William W. Hersohn, *Chairman* .....Atlantic City
Robert B. Durham .....Atlantic City
Milton Ackerman .....Atlantic City

WELFARE COMMITTEE

Samuel Blaugrund, *Chairman* .....Trenton
Sigurd W. Johnsen, *Ex-Officio* .....Passaic
Marcus H. Greifinger, *Ex-Officio* .....Newark
Baxter H. Timberlake (Atlantic County) .....Ventnor
John F. Perez .....Atlantic City
Joseph McGahn .....Atlantic City
Stewart F. Alexander (Bergen County) .....Park Ridge
John L. Olpp .....Tenafly
Edward V. Sexton .....Teaneck
Rudolph C. Schretzmann .....West Engelwood
William E. Bray (Burlington County) .....Pemberton
R. Winfield Betts .....Medford
William Braun (Camden County) .....Camden
James P. Harbeson .....Camden
Charles O. Tyler .....Haddonfield
Samuel B. Hughes (Cape May County) .....Wildwood
Albert B. Kump (Cumberland County) .....Bridgeton
Mary Bacon .....Bridgeton
Stuart Z. Hawkes (Essex County) .....Newark
Kenneth E. Gardner .....Bloomfield
Otto G. Matheke .....Newark
Nicholas A. Antonius .....Newark
William H. Hahn .....Newark
Joseph I. Echikson .....Newark
Isaac N. Patterson (Gloucester County) .....Westville
Chester I. Ulmer .....Gibbstown
Hugh H. Tyndall (Hudson County) .....Weehawken
Vincent P. Butler .....Jersey City
Ray E. Trussell (Hunterdon County) .....Flemington
Raymond J. Germain .....High Bridge
John L. Wikoff (Mercer County) .....Trenton
R. John Cottone .....Trenton
C. Howard Rothfuss (Middlesex County).....Woodbridge
John S. Van Mater .....New Brunswick
Harry R. Brindle (Monmouth County) .....Asbury Park
C. Byron Blaisdell .....Asbury Park
John C. Clark .....Asbury Park
F. Clyde Bowers (Morris County) .....Mendham
William G. Talmage .....Succasunna
Alvin A. Rosenberg .....Morristown
Blackwell Sawyer (Ocean County) .....Toms River
Raymond A. Taylor .....Lakewood
Joseph E. Mott (Passaic County) .....Paterson
H. Hale Hollingsworth .....Clifton
Morris Joseph .....Passaic
Harry F. Suter (Salem County) .....Penns Grove
John S. Madara .....Salem
Lewis C. Fritts (Somerset County) .....Somerville
George E. Barbour .....Somerville
George F. Catlett (Sussex County) .....Newton
Jack J. Caleca .....Andover
Louis Wegryn (Union County) .....Elizabeth
Edward G. Bourns .....Westfield
Herschel S. Murphy .....Roselle
Frederic W. Lathrop .....Plainfield
Ralph M. L. Buchanan (Warren County) .....Phillipsburg
Timothy H. Spillane .....Phillipsburg
John McDonald, Jr. .....Belvidere
Mrs. Thomas H. McGlade (Auxiliary)....West Collingswood

SPECIAL COMMITTEE TO THE WELFARE COMMITTEE

Medical School

Stuart Z. Hawkes, *Chairman* .....Newark

Stewart F. Alexander, *Vice-Chairman* .....Park Ridge
Vincent P. Butler .....Jersey City
John S. Van Mater .....New Brunswick
James G. Kehler .....Woodbury
William G. Herrman .....Deal
Henry B. Decker, *Trustee Adviser* .....Camden

SUBCOMMITTEES TO THE WELFARE COMMITTEE

Legislation

C. BYRON BLAISDELL, *Chairman* ..... Asbury Park
ADOLPH WEGROCKI, *Vice-Chairman* ..... Newark
H. HALE HOLLINGSWORTH ..... Clifton
R. JOHN COTTONE ..... Trenton
BAXTER H. TIMBERLAKE ..... Ventnor
WALTER F. PHELAN ..... Elizabeth
JAMES S. SHIPMAN ..... Camden
STEWART F. ALEXANDER ..... Park Ridge
ALDRICH C. CROWE, *Trustee Adviser* ..... Ocean City
JOSEPH F. LONDRIGAN, *Executive Secretary* ..... Hoboken
MRS. ANTON P. RANDAZZO, (Auxiliary) ..... Passaic

Medical Practice

ALBERT B. KUMP, *Chairman* ..... Bridgeton
HERSCHEL S. MURPHY, *Vice-Chairman* ..... Roselle
EDWARD T. LAWLESS ..... Upper Montclair
FLORENTINE M. HOFFMAN ..... New Brunswick
HAROLD C. COX ..... Hightstown
ASHER YAGUDA ..... Newark
JOHN L. VARRIANO ..... Jersey City
ELMER J. ELIAS ..... Trenton
JOHN L. OLPP ..... Tenafly
RALPH A. YOUNG ..... Linden
D. WARD SCANLAN ..... Atlantic City
ANDREW C. RUOFF ..... Union City
CLARENCE B. WHIMS ..... Ventnor
ROYAL A. SCHAAF, *Trustee Adviser* ..... Newark

Public Health

JOSEPH I. ECHIKSON, *Chairman* ..... Newark
VINCENT P. DEL DUCA, *Vice-Chairman* ..... Camden
NATHAN SWERN ..... Trenton
WILLIAM O. WUESTER ..... Elizabeth
JEROME G. KAUFMAN ..... Newark
HARRY J. WHITE ..... Metuchen
FREDERIC W. LATHROP ..... Plainfield
REINOLD W. TERKUILE ..... Ridgewood
JOHN D. PREECE ..... Trenton
HARRISON F. ENGLISH ..... Trenton
S. WILLIAM KALB ..... Newark
H. EUGENE READING ..... Paterson
RALPH M. L. BUCHANAN ..... Phillipsburg
ELTON W. LANCE ..... Rahway
ROBERT L. MCKIERNAN ..... New Brunswick
HARROLD A. MURRAY, *Trustee Adviser* ..... Newark
MRS. R. JOHN COTTONE (Auxiliary) ..... Trenton

Public Relations

JOSEPH E. MOTT, *Chairman* ..... Paterson
WILLIAM E. BRAY, *Vice-Chairman* ..... Pemberton
HARRY F. SUTER ..... Penns Grove
FRANK S. FORTE ..... Newark
JOSEPH R. JEHL ..... Clifton
JOHN L. WIKOFF ..... Trenton
ARTHUR P. TREWHELLA ..... Jersey City
JOHN S. VAN MATER ..... New Brunswick
STANLEY TESKEY ..... Bernardsville
JOHN W. HOLLAND ..... Atlantic City
EDWIN R. RISTINE ..... Camden
CHARLES CUNNINGHAM, JR. ..... Vineland
DAVID B. ALLMAN, *Trustee Adviser* ..... Atlantic City
MRS. STEWART F. ALEXANDER (Auxiliary) ..... Park Ridge

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON PUBLIC HEALTH

Adult Disease Control

NATHAN SWERN, *Chairman* ..... Trenton

Cancer Control

WILLIAM O. WUESTER, *Chairman* ..... Elizabeth
WILLIAM E. BRAY ..... Pemberton
JAMES S. GALLO ..... Paterson
OTTO R. HOLTERS ..... Asbury Park
JOSEPH I. ECHIKSON ..... Newark
W. JAMES MARQUIS ..... East Orange
H. WESLEY JACK ..... Camden
JOHN L. OLPP ..... Tenafly
NICHOLAS M. ALTER ..... Jersey City
FRANK M. MASTROIANNI ..... Roselle Park
GEORGE P. KOECK ..... Newark
VICTOR B. SEIDLER ..... Montclair
SALVATORE GIORDANO ..... Morristown
JOSEPH CAMARDA ..... Lakehurst
ROYAL A. SCHAAF ..... Newark

Consultants

EMIL FRANKEL, Ph.D. (Dept. Inst. & Agencies) ..... Trenton
MR. CHARLES C. HANSBURY (N. J. Cancer Society) ..... Newark
ROBERT MERRILL (Dept. of Health) ..... Trenton

Cardio-Vascular Diseases

JEROME G. KAUFMAN, *Chairman* ..... Newark
HARRY BLOCH ..... Elizabeth
NORMAN REITMAN ..... New Brunswick
HARVEY E. NUSSBAUM ..... Newark
LOUIS F. ALBRIGHT ..... Asbury Park
FRANK J. ALTSCHUL ..... Long Branch
HAROLD K. EYNON ..... Camden
G. BARTON BARLOW ..... Englewood
THOMAS J. WHITE ..... Jersey City
ROBERT B. DURHAM ..... Atlantic City
JOHN A. KINCZEL ..... Trenton
ROYAL S. SCHAAF ..... Newark
JAMES E. PHELPS ..... Paterson

Chest Diseases

HARRY J. WHITE, *Chairman* ..... Metuchen
J. S. D. EISENHOWER ..... Wildwood
MARCUS W. NEWCOMB ..... Browns Mills
JOSEPH A. SMITH ..... Glen Gardner
MARTIN H. COLLIER ..... Blackwood
HAROLD S. HATCH ..... Morristown
RUFUS R. LITTLE ..... Oradell
CHARLES HYMAN ..... Atlantic City
PAUL KLEMPNER ..... Trenton
HENRY A. BRODKIN ..... Newark
HOMER H. CHERRY ..... Paterson
JOHN E. RUNNELLS ..... Scotch Plains
A. JOSEPH HUGHES ..... Camden
PAUL GEARY ..... Plainfield
FREDERIC J. QUIGLEY ..... Jersey City

Consultant

MR. WILLIAM H. MACDONALD (Dept. of Health) ..... Trenton

Child Health

FREDERIC W. LATHROP, *Chairman* ..... Plainfield
GEORGE J. MCDONNELL ..... Freehold
ABRAM L. VAN HORN ..... Far Hills
EDWARD P. DUFFY, JR. ..... Belleville
HARROLD A. MURRAY ..... Newark
WILLIAM F. MATTHEWS ..... Montclair
WALTER L. MITCHELL, JR. ..... Newark
GEOFFREY W. ESTY ..... Princeton
WILLIAM L. RUMSEY, JR. ..... Elizabeth
JOSEPH F. RAFFETTO ..... Asbury Park
JULIUS LEVY ..... East Orange
ARTHUR HEYMAN ..... Newark
ISRAEL J. WOLF ..... Paterson
HYMAN P. FINE ..... Perth Amboy

Conservation of Vision and Hearing

REINHOLD W. TERKUILE, *Chairman* ..... Ridgewood
JAMES S. SHIPMAN ..... Camden
ROBISON D. HARLEY ..... Atlantic City
GEORGE F. WORCESTER ..... Englewood
A. RUSSELL SHERMAN ..... Newark
JOSEPH H. KLER ..... New Brunswick
GEORGE A. CORIO ..... Trenton
S. EUGENE DALTON ..... Ventnor

Maternal Welfare

JOHN D. PREECE, *Chairman* ..... Trenton
SAMUEL A. COSGROVE ..... Jersey City
ROBERT A. MACKENZIE ..... Asbury Park
STANTON H. DAVIS ..... Plainfield
GEORGE B. GERMAN ..... Merchantville
RAYMOND T. POTTER ..... East Orange
GERALD W. HAYES ..... East Orange
J. CARLISLE BROWN ..... Atlantic City
FELIX H. VANN ..... Englewood
PERCY L. SMITH ..... Trenton
HERSCHEL S. MURPHY ..... Roselle
THEODORE K. GRAHAM ..... Paterson
SAMUEL G. BERKOW ..... Perth Amboy
HERBERT F. JOHNSON ..... Camden

Mental Hygiene

HARRISON F. ENGLISH, *Chairman* ..... Trenton
THEODORE R. ROBIE ..... East Orange
LEWIS H. LOESER ..... Newark
LUMAN H. TENNEY ..... Princeton
DAVID W. MCCREIGHT ..... Marlboro
HENRY A. DAVIDSON ..... Trenton
ROLAND J. LYNCH ..... Secaucus
J. BERKELEY GORDON ..... Marlboro
EDWARD P. DUFFY, JR. ..... Belleville

Consultants

EDWARD J. HUMPHREYS (Dept. Inst. & Agencies) ..... Trenton
J. KENDALL WALLIS ..... Princeton

PUBLIC HEALTH ADVISORY COMMITTEES—Continued

Nutrition

S. William Kalb, *Chairman* ..... Newark
Arthur D. Sewall ..... Bridgeton
Charles M. Aronsohn ..... Paterson
Leslie M. Townsend ..... Roselle Park
Hazel A. C. Lin ..... Jersey City
Harry W. Fullerton, Jr. ..... Carney's Point
Charles F. Church ..... New Brunswick
John Piampiano ..... Hamburg
Albert F. Schmidt ..... Sea Girt

Rehabilitation

H. Eugene Reading, *Chairman* ..... Paterson
John J. Flanagan ..... Newark
Henry H. Kessler ..... Newark
Henry Briggs ..... East Orange
Paul J. Finegan ..... Trenton
Frederick G. Dilger ..... Hackensack
David B. Allman ..... Atlantic City
Elmer P. Weigel ..... Plainfield
Oswald R. Carlander ..... Camden
Robert J. Neville ..... Hackensack
Harold G. Kunz ..... Montclair
Leopold Szerlip ..... Newark

Rural Health

Ralph M. L. Buchanan, *Chairman* ..... Philipsburg
R. Winfield Betts ..... Medford
Carl N. Ware ..... Shiloh
William G. Harris ..... Mullica Hill
John W. Hardy ..... Farmingdale
John B. Hopper ..... Mendham
C. Spencer Davison ..... Salem
Lewis C. Fritts ..... Somerville
John B. Fuhrmann ..... Flemington
Lester R. Eddy ..... Sussex

School Health

Elton W. Lance, *Chairman* ..... Rahway
K. Virginia Maurer ..... Livingston
David W. Green ..... Salem
Joseph R. Jehl ..... Clifton

Venereal Disease Control

Robert L. McKiernan, *Chairman* ..... New Brunswick
Charles H. deT. Shivers ..... Atlantic City
John C. Clark ..... Asbury Park
George W. Irmish ..... Trenton
Herman H. Goldstein ..... Elizabeth
William K. Wheeler ..... Newark
William C. Wilentz ..... Perth Amboy
Irwin Markowitz ..... Jersey City

ADVISORY COMMITTEES TO THE SUBCOMMITTEE ON MEDICAL PRACTICE

Anesthesiology

Edward T. Lawless, *Chairman* ..... Upper Montclair
Durant K. Charleroy ..... Trenton
Abraham L. Dear ..... Newark
Leo J. Fitzpatrick ..... West Englewood
Irving Hayman ..... Paterson
Lester W. Netz ..... Hackensack
Herman I. Roseman ..... Glen Ridge

General Practice

D. Ward Scanlan, *Chairman* ..... Atlantic City
G. Ruffin Stamps ..... Atlantic City
Winton H. Johnson ..... Hackensack
Luis E. Viteri ..... Mount Holly
Isaac N. Patterson ..... Westville
Paul Klempner ..... Trenton
Morton F. Trippe ..... Asbury Park
Aaron H. Horland ..... Newark

Group Practice

Clarence B. Whims, *Chairman* ..... Ventnor
Eugene J. Luippold ..... Boonton
Orlo H. Clark ..... Passaic
Maynard G. Bensley ..... Summit
DeWitt H. Smith ..... Princeton
Royal S. Schaaf ..... Newark

Hospital Relationships

Florentine M. Hoffman, *Chairman* ..... New Brunswick
J. Harris Underwood ..... Woodbury
Watson B. Morris ..... Springfield
J. Lawrence Evans ..... Woodcliff
Leonard S. Ellenbogen ..... Atlantic City
John F. Johnson ..... Trenton
Francis M. Clarke ..... New Brunswick
Louis S. Wegryn ..... Elizabeth

Laboratory Medicine

Asher Yaguda, *Chairman* ..... Newark
William G. Bernhard ..... Short Hills
Edwin H. Albano ..... East Orange
William W. Hersohn ..... Margate City
Thomas K. Rathmell ..... Trenton
A. Hobson Davis ..... Paterson

Nursing

Andrew C. Ruoff, *Chairman* ..... Union City
L. Elizabeth Weber ..... Union City
Harold Goldberg ..... Newark
Gerald Sinnott ..... Jersey City

Pharmaceutical Problems

John L. Varriano, *Chairman* ..... Jersey City
George M. Knowles ..... Hackensack
Harold Sager ..... Bayonne
Anthony DiIelsi ..... Camden

Physical Medicine

Elmer J. Elias, *Chairman* ..... Trenton
Bror S. Troedsson ..... Orange
Thomas P. McConaghy ..... Camden
Joseph F. A. RuBacky ..... Passaic
F. B. Lane Haines ..... Ocean City

Radiology

John L. Olpp, *Chairman* ..... Tenafly
Harry R. Brindle ..... Asbury Park
Peter Gianquinto ..... Newark
Benjamin Copleman ..... Perth Amboy
Harry J. Perlberg ..... Jersey City
William H. Seward ..... Orange
Winthrop H. Hall ..... Westfield

Welfare Services

Harold C. Cox, *Chairman* ..... Hightstown
Richard T. Buckley, Jr. ..... Maple Shade
Donald G. Reynolds ..... Freehold
John F. Johnson ..... Trenton

Workmen's Compensation and Industrial Health

Ralph A. Young, *Chairman* ..... Linden
Thomas M. Thompson ..... Highland Park
C. Scott McKinley ..... Plainfield
L. Holland Whitney ..... Newark
Walter W. Mockett ..... Maywood
Daniel F. Featherston ..... Asbury Park

SPECIAL COMMITTEES

Physician Resources

William G. Herrman, *Chairman* ..... Deal
L. Samuel Sica, *Vice-Chairman* ..... Trenton
Andrew F. McBride, Jr. ..... Paterson
Frederick S. Taber ..... New Brunswick
Albert B. Kump ..... Bridgeton
F. Clyde Bowers ..... Mendham

Emergency Education Program

Henry B. Decker, *Chairman* ..... Camden
Sigurd W. Johnsen ..... Passaic
Harrold A. Murray ..... Newark
Elton W. Lance ..... Rahway
Marcus H. Greifinger ..... Newark
George J. Young ..... Morristown
David B. Allman ..... Atlantic City
William F. Costello ..... Dover

WOMAN'S AUXILIARY

Officers

President, MRS. THOMAS H. McGLADE.....West Collingswood
President-Elect, MRS. EDWARD H. DYER.....Ventnor
First Vice-President, MRS. FRANK S. FORTE.....Newark
Second Vice-Pres., MRS. PAUL E. RAUSCHENBACH....Paterson
Rec. Secretary, MRS. BERTRAM J. L. SAUERBRUNN...Elizabeth
Cor. Secretary, MRS. FREDERICK G. WANDALL.....Pitman
Treasurer, MRS. ASHER YAGUDA .....Newark

Advisory Board

MRS. WILLIAM E. DODD .....Beach Haven
MRS. FREDERICK G. WANDALL .....Pitman
MRS. LODOVICO MANCUSI-UNGARO .....Newark
MRS. ROBERT B. WALKER .....Highland Park
MRS. R. JOHN COTTONE .....Trenton

OFFICERS OF COUNTY MEDICAL SOCIETIES

COUNTY	PRESIDENT	SECRETARY	REPORTER
ATLANTIC	Anthony G. Merendino, Atlantic City	Louis Rosenberg, Atlantic City	Leonard B. Erber, Atlantic City
BERGEN	Edward V. Sexton, Teaneck	John E. McWhorter, Englewood	John E. McWhorter, Englewood
BURLINGTON	T. Bruce Dickson, Riverton	Richard T. Buckley, Jr., Maple S.	William F. Betsch, Moorestown
CAMDEN	Walter A. Crist, West Collingswood	William Braun, Camden	James P. Harbeson, Haddonfield
CAPE MAY	Francis A. Hauck, Sea Isle City	Carl J. Records, Cape May	Marcus Fath, Wildwood
CUMBERLAND	Edwin C. Greene, Bridgeton	Mary Bacon, Bridgeton	Frank J. Aitken, Bridgeton
ESSEX	Kenneth E. Gardner, Bloomfield	Marcus H. Greifinger, Newark	Elizabeth R. Brackett, Nutley
GLOUCESTER	Anthony J. DiMarino, Paulsboro	Clarence A. Bowersox, Woodbury	Louis K. Collins, Glassboro
HUDSON	William J. Gleeson, Jersey City	Joseph P. Donnelly, Jersey City	John L. Varriano, Jersey City
HUNTERDON	A. John Bambara, Flemington	John B. Fuhrmann, Flemington	John B. Fuhrmann, Flemington
MERCER	Ferdinand K. Engelhart, Trenton	W. Laurence Bonnet, Trenton	W. Laurence Bonnet, Trenton
MIDDLESEX	Marshall Smith, New Brunswick	Charles F. Church, New Brunswick	Martha F. Leonard, Highland P.
MONMOUTH	J. Berkeley Gordon, Marlboro	Howard C. Pieper, Keyport	Sidney M. Hodas, Red Bank
MORRIS	C. Archie Crandall, Greystone Park	J. Landon Voss, Morristown	Theodore R. Failmezger, Madison
OCEAN	Carmine L. Pecora, Toms River	Richard R. Gove, Jr., Brandt B.	Jesse Schulman, Lakewood
PASSAIC	Sandor A. Levinsohn, Paterson	Joseph R. Jehl, Clifton	Leopold E. Thron, Paterson
SALEM	R. Louis Silverman, Penns Grove	Harry F. Suter, Penns Grove	Wilbur S. Davison, Pennsville
SOMERSET	Irving Klompus, Bound Brook	John L. Spaldo, Somerville	John L. Spaldo, Somerville
SUSSEX	Leslie Vermes, Franklin	Robert F. Ficker, Ogdensburg	Martin I. Kirschner, Vernon
UNION	Louis S. Wegryn, Elizabeth	Edward G. Bourns, Westfield	Leslie M. Townsend, Roselle P.
WARREN	Charles W. Potter, Washington	Raymond Cooper, Washington	John Hampton, Washington

TASTE!! TASTE!!

TASTE!! TASTE!!

A NEW water soluble multiple vitamin drop for infants and children that really TASTES GOOD.

VI-DROL

(MARA)

Water Soluble Polyvitamin Drops

Each 0.6 cc. provides

Vitamin A	5000 U.S.P. Units
Vitamin D	1000 U.S.P. Units
Vitamin C	60 mg.
Vitamin B_1	2 mg.
Vitamin B_2	0.4 mg.
Vitamin B_6	0.1 mg.
Niacinamide	5 mg.
Pantothenic Acid	2 mg.

CONTAINS NO ALCOHOL

Insure young patient acceptance to daily vitamin supplementation by prescribing VI-DROL (MARA).

Available at all Drug Stores. **30cc. Graduated Dropper Bottle---$2.25**

The Mara Laboratories, Inc.

HARRISON NEW JERSEY

FUNCTIONAL NERVOUS DISORDERS

IN *Visceroptotic Patients*

Pressure variations induced by movements of the diaphragm are in part responsible for the venous return to the heart. Highly sensitive nervous connections are influenced by its positions. "Globus Hystericus" is seldom manifest in functional visceroptotic patients when reclining. Sudden dropping of the viscera such as occurs upon arising in the morning initiates symptoms. Tension on the diaphragm irritates sympathetic connections, thereby lowering vasmotor tone. "The globus is almost invariably relieved by abdominal support and systematic breathing exercises to release diaphragmatic tension."*

**Gosselin, George A., M.D.*
Neurology and Physiology in Functional States
Connecticut State Medical Journal
15: 109-113, (February) 1951

CAMP

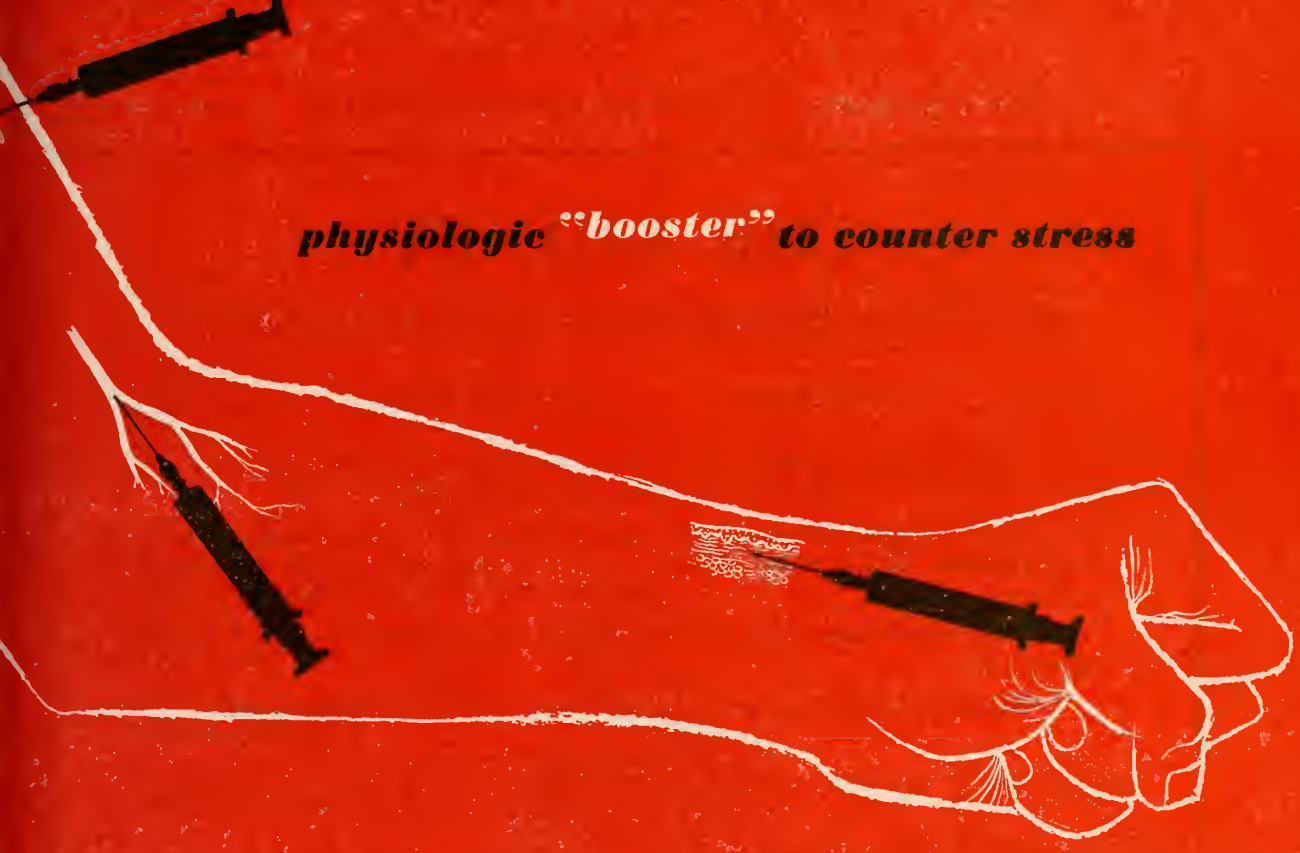
Visceroptosis Supports, scientifically designed, universally distributed. Prescribed by physicians and praised by the patients who wear them.

S. H. CAMP and COMPANY, JACKSON, MICHIGAN

World's Largest Manufacturers of Scientific Supports

Offices in New York • Chicago • Windsor, Ontario •• London, England

physiologic "booster" to counter stress



In situations of bodily stress, endogenous output of adrenal cortical hormones often proves unequal to surging physiologic need. Adrenal cortical function warrants therapeutic support in patients with severe burns or infections as well as in medical and surgical convalescence complicated by adrenal insufficiency. For an exogenous "booster" source to help meet the demands of such stressful states . . .

℞ Upjohn Adrenal Cortex Extract

10 cc. and 50 cc. vials of sterile solution for subcutaneous, intramuscular, or intravenous injection.

The potency, purity and standardized metabolic range of this and other products are pioneering contributions to medical practice from Upjohn research in adrenal physiology and in the elaboration of extracts providing *all* the vital adrenal cortical hormones.

Each cc. of Upjohn Adrenal Cortex Extract contains the biological activity equivalent of 0.1 mg. of 17-hydroxycorticosterone, as standardized by the Rat Liver-Glycogen Deposition test. Alcohol 10%.

product of

Upjohn Research

for Medicine . . . Produced with care . . . Designed for health

THE UPJOHN COMPANY · KALAMAZOO, MICHIGAN

"The value of sulfonamide mixtures in reducing crystalluria and renal complications is based on

undisputed experimental evidence

"It has been confirmed by several independent groups of investigators in rigorous practical tests at the bedside."
(Lehr, D.: J.A.M.A., Feb. 5, 1949.)

for safer, effective, speedy, highly palatable sulfonamide therapy

tri-sulfameth

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Each 5 cc. of syrup (approx. one teaspoonful) ...or each tablet contains 0.5 Gm. of sulfa compound:	
SULFAMETHAZINE	0.165 Gm.
SULFADIAZINE	0.165 Gm.
SULFAMERAZINE	0.165 Gm.
SODIUM CITRATE*	0.5 Gm.
*not contained in Tri-Sulfameth Tablets	

Samples of Tri-Sulfameth on request

CASIMIR FUNK LABORATORIES, INC.
affiliate of U. S. Vitamin Corporation
250 East 43rd Street, New York 17, N. Y.

aqueous natural vitamin A

the ***original*** *– and* ***first*** *accepted by the counci*

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Aqueous solutions of vitamin A . . . as provided in AQUASOL VITAMIN A DROPS . . . are more rapidly absorbed than vitamin A in oil solution. Suggested in patients with dysfunctions of the liver, pancreas, and biliary tract which interfere with utilization of fats; in celiac disease and certain other diarrheal states.[1-14]

AQUASOL VITAMIN A DROPS are well tolerated, as special processing removes fish oils, fats, proteins and other potential allergens and non-vitamin materials from the original fish liver oil . . . leaving a concentrated form of natural vitamin A.

The development of aqueous solutions of liposoluble vitamins was pioneered by the Research Laboratories of U. S. Vitamin Corporation in 1943 . . . now protected by U. S. Patent No. 2.417.299.

Aquasol vitamin A drops

50,000 U.S.P. units
of natural vitamin A
per cc. in aqueous solution.

In 15 cc. and 30 cc. bottles, with dropper

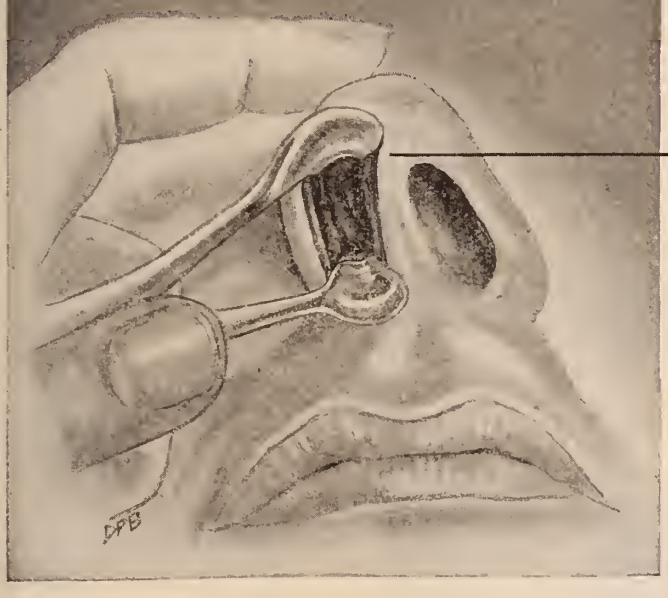
Samples available upon request.

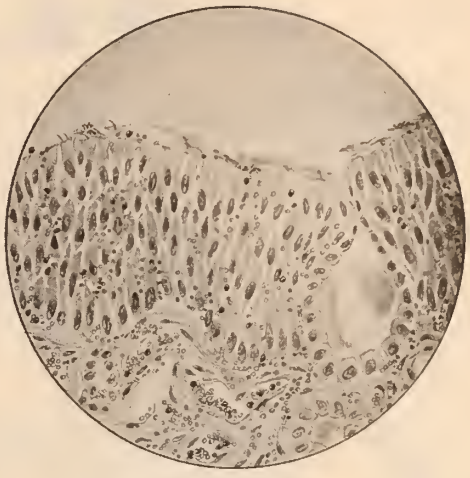
U. S. VITAMIN CORPORATION

CASIMIR FUNK LABS., INC. (affiliate) 250 E. 43rd St., New York 17, N. Y.

1. Lewis, J. M. et al.: Jl. Pediatrics 31:496, 1947. 2. Kramer, G. et al.: Am. Jl. Dis. Child. 73:543, 1947. 3. Halpern, G. R. et al.: Science 106:40, 1947.
4. Nutrition Reviews 5:286, 1947. 5. Clifford, S. H. and Weller, K. H.: Pediatrics 1:505, 1948. 6. Popper, H. et al.: Gastroenterology 10:987, 1948.
7. Davidson, D. M. et al.: Jl. Invest. Derm. 12:221, 1949. 8. Nutrition Reviews 6:248, 1948. 9. Nutrition Reviews: 9:191, 1951.
10. Lewis, J. M. and Cohlan, S. Q.: M. Clin. N. A. 34:413, March 1950. 11. Sobel, A. E. et al.: Am. Jl. Dis. Child. 80:932, Dec. 1950.
12. Lewis, J. M. et al.: Pediatrics 5:425, March 1950. 13. Sobel, A. E. et al.: Jl. Nutr. 35:225, Feb. 1948.
14. Sulzberger, M. et al.: Yearbook of Derm. & Syph. 1949, p. 14.

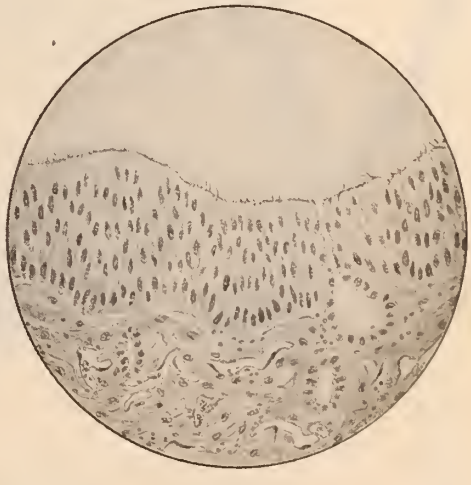
promotes aeration . . . free drainage in colds . . . sinusitis





Nasal membrane showing increased leukocytes with denudation of cilia.

Normal appearing nasal epithelium.



Nasal engorgement and hypersecretion accompanying the common cold and sinusitis are quickly relieved by the vasoconstrictive action of

NEO-SYNEPHRINE®

HYDROCHLORIDE

Brand of Phenylephrine Hydrochloride

The decongestive action of several drops in each nostril usually extends over two to four hours. The effect is undiminished after repeated use.

Relatively nonirritating . . . Virtually no central stimulation.

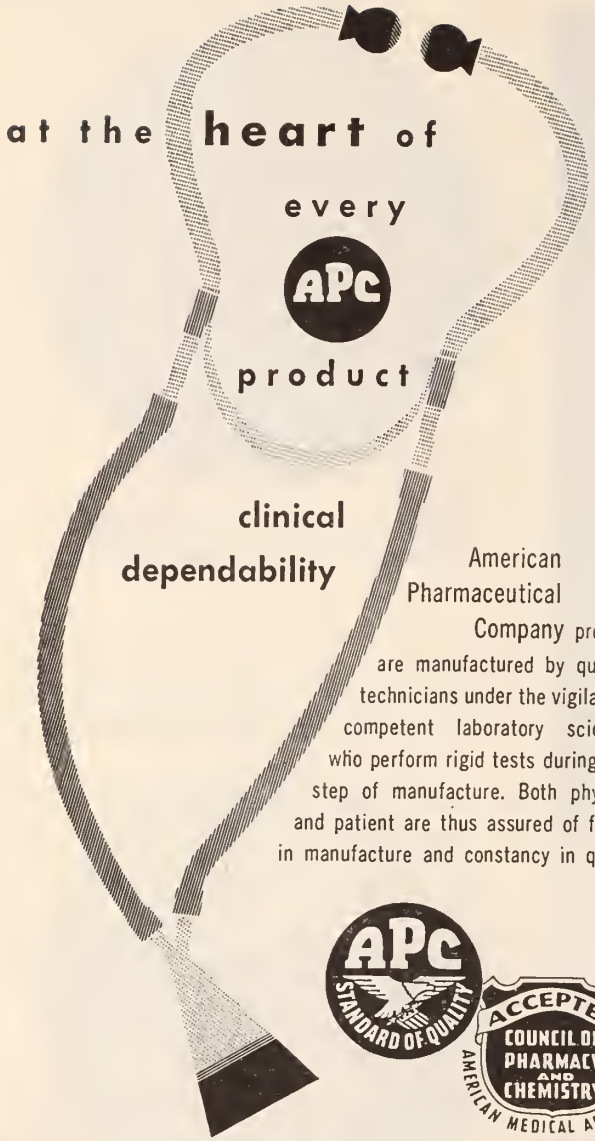
Supplied in ¼% solution (plain and aromatic), 1 oz. bottles. Also 1% solution (when greater concentration is required), 1 oz. bottles, and ½% water soluble jelly, ⅝ oz. tubes.

Winthrop-Stearns INC.

NEW YORK 13, N. Y. WINDSOR, ONT.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Neo-Synephrine, trademark reg. U. S. & Canada



clinical dependability

American Pharmaceutical Company products are manufactured by qualified technicians under the vigilance of competent laboratory scientists who perform rigid tests during every step of manufacture. Both physician and patient are thus assured of fidelity in manufacture and constancy in quality.

APC STANDARD OF QUALITY

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Aminophylline Suppositories **APC** 0.5 Gm.
Aminophylline Tablets **APC** 0.1 Gm., 0.2 Gm.
Aminophylline Tablets **APC** Enteric coated 0.1 Gm., 0.2 Gm.
Ascorbic Acid Crystals **APC**
Ascorbic Acid Tablets **APC** 25 mg., 50 mg., 100 mg.
Diethylstilbestrol **APC** 0.5 mg., 1 mg., 5 mg.
Diphenylhydantoin Sodium Capsules **APC** 0.1 Gm.
Folic Acid Tablets **APC** 5 mg.
Nicotinamide Tablets **APC** 50 mg., 100 mg.
Nicotinic Acid Powder **APC**
Nicotinic Acid Tablets **APC** 25 mg., 50 mg., 100 mg.
Oleovitamin A Capsules **APC** 25,000 U.S.P. Units
Para-Aminosalicylic Acid Powder **APC** 1 lb.
Para-Aminosalicylic Acid Tablets **APC** 0.5 Gm.
Para-Aminosalicylic Acid Tablets **APC** Brown coated 0.5 Gm.
Percomorph Liver Oil **APC** 50% with Viosterol 10 cc., 50 c
Riboflavin Tablets **APC** 1 mg., 5 mg., 10 mg.
Sodium Para-Aminosalicylate Powder **APC** 1 lb.
Sodium Para-Aminosalicylate Tablets **APC** 0.5 Gm.
Sulfadiazine Tablets **APC** 0.5 Gm.
Sulfamerazine Tablets **APC** 0.5 Gm.
Thiamine Hydrochloride Tablets **APC** 1 mg., 5 mg., 10 mg.
Viosterol in Oil **APC** 10 cc., 50 cc.

AMERICAN PHARMACEUTICAL COMPAN

MANUFACTURING CHEMISTS
NEW YORK 54, N. Y.

All Children Can Benefit from *this* Protective Hot Drink at Breakfast

In its widely distributed leaflet No. 268, "Eat a Good Breakfast," the U. S. Dept. of Agriculture states: "Summer or winter, there's something hot, as a rule, in a good breakfast.... Something hot is cheering and tones up the whole digestive route."

The problem of encouraging children to eat an adequately protective breakfast finds easier solution when Ovaltine in hot milk is recommended as a breakfast beverage. Many children clamor for a hot drink at the morning meal, and hot Ovaltine is the right kind of drink to recommend.

A cup of hot Ovaltine makes an excellent contribution of virtually all essential nutrients, adding substantially to the nutritional start for the day. It also serves in a gustatory capacity by enhancing the appeal of breakfast and making other foods more inviting.

The nutrient contribution made by a cup of Ovaltine is apparent from the table below. Note the wealth of essentials added to the nutritional intake by making the simple recommendation of adding a cup of hot Ovaltine to the child's breakfast.

THE WANDER COMPANY, 360 N. MICHIGAN AVE., CHICAGO 1, ILLINOIS

Ovaltine

Here are the nutrients that a cupful of hot Ovaltine, made of ½ oz. of Ovaltine and 8 fl. oz. of whole milk,* provides:

PROTEIN	10.5 Gm.	IRON	4 mg.	NIACIN	2.3 mg.
FAT	10.5 Gm.	COPPER	0.2 mg.	VITAMIN C	10 mg.
CARBOHYDRATE	22 Gm.	VITAMIN A	1000 I.U.	VITAMIN D	140 I.U.
CALCIUM	370 mg.	VITAMIN B_1	0.39 mg.	CALORIES	225
PHOSPHORUS	315 mg.	RIBOFLAVIN	0.7 mg.		

*Based on average reported values for milk.

More people smoke **Camels** than any other cigarette!


PRIODAX®
(brand of Iodoalphionic Acid U.S.P.)
CHOLECYSTOGRAPHY
presents
gallbladder shadows of great clarity
free from confusing shadows
assisted by
a simple preparatory routine
and
tolerance of the highest degree.
SCHERING
Schering CORPORATION • BLOOMFIELD, N. J.
SCHERING CORP. • BLOOMFIELD, N. J.
PRIODAX
CHOLECYSTOGRAPHY
PRIODAX
SCHERING
SCHERING CORP. • BLOOMFIELD, N. J.
PRIODAX
CHOLECYSTOGRAPHY
PRIODAX
SCHERING
PRIODAX
SCHERING

THE JOURNAL
OF
THE MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY SINCE 1904

Whole Number of Issues 568

UNDER THE DIRECTION OF THE
COMMITTEE ON PUBLICATION
J. LAWRENCE EVANS, JR., M.D.,
Chairman

HENRY A. DAVIDSON, M.D., Editor

MIRIAM N. ARMSTRONG,
Assistant Editor

Place of Publication, Printing and Mailing—116 Lincoln Avenue, Orange, N. J.
Editorial and Executive Offices of the Society—315 West State Street, Trenton 8, N. J.
Telephone 4-3154
Send all communications for publication to the Trenton Office
Each member of the State Society is entitled to receive a copy of THE JOURNAL every month.

VOL. 48, No. 12 DECEMBER, 1951 Single Copies, 30 Cents
Subscriptions, $3.00 per Year

PRESIDENT'S MESSAGE

Our Medical-Surgical Plan will soon celebrate its tenth anniversary. We are proud of its accomplishments and we can justly congratulate ourselves for another forward step which many other state societies have followed.

A few pertinent facts wll give an idea of just how important a place our Medical-Surgical Plan occupies in our state activities.

Five thousand of our physicians are now participating physicians — a most gratifying accomplishment.

Six hundred fifty thousand citizens of New Jersey are now enrolled in the Medical-Surgical Plan—a net increase of 200,000 in the past twelve months.

Medical-Surgical Plan is now paying claims to the physicians at the rate of nearly $8,000,000.00 per year. The cost of operating the Plan is about 13 per cent of income.

To the Board of Trustees of the Medical-Surgical Plan, we owe a great debt of gratitude for their unceasing work and sacrifices during these past ten years. To the officers and employees of the Plan, we extend our thanks and express our appreciation for their excellent work.

To all our participating physicians, we express our thanks for their cooperation, in spite of reservations many individual physicians have had. Changes in contracts, changes in income limits, and changes in contract benefit payments have been carried out with the full cooperation of the State Medical Society, and we can all take pride in the fact that this cooperative effort has been so successful.

There are some of our participating physicians who feel that the income level has been set at too high a figure, but the fact that the Plan is increasing at a most satisfactory rate justifies the decision made to raise the income levels.

A few participating physicians are making charges in addition to the Plan benefits, where income levels call for complete payment by the Plan. This is a disservice to the policy holders, as well as to the great majority of physicians who are living up to their agreement. We hope that it will not be necessary to take more drastic steps to correct these abuses, but it is a definite threat to the continued success of the Plan to have some physicians bringing discredit to the Society by this practice.

Let us, therefore, continue the good work which has already been done and get behind the Medical-Surgical Plan with our complete cooperation, so that the benefits of the Plan may be available to more people. We can thereby demonstrate that the voluntary way is the American way.

Sigurd W. Johnsen, M.D.

TOXIC EFFECTS OF MODERN DRUGS

The medical practitioner of today must have a wide knowledge of pharmacologic and toxologic principles to avoid unpleasant results with many currently used drugs. Physicians are generally aware of the deleterious effects of overdosage, and apprised of idiosyncrasy or hypersensitivity to certain pharmaceuticals. The undesirable side effects of the antihistamines are likewise well known. However, the materia medica has been expanded in the past few years to include many preparations with toxic effects based on their physiologic actions. If such drugs are not used correctly, serious results may occur.

Among the potentially most toxic of drugs are those used in heart disease. The purification of the cardiac glycosides (while theoretically placing dosage on a more scientific plane) actually has resulted in an increased number of cases of glycoside toxicity. This is attributed to the greater potency of such preparations, and therefore to marked changes in cardiac function by minute changes in dose. Similarly, the development of more effective diuretics, especially the mercurials, in combination with the introduction of the low-salt diet, has led to a new iatrogenic complex, the "low-salt syndrome", characterized clinically by muscular weakness and respiratory difficulties, and chemically by a fall in serum sodium and chloride, and a rise in the urea nitrogen. In addition, the mercurial diuretics have a direct cardiotoxic action.

The introduction of cation exchange resins into cardiac therapy also raises the possibility of producing serious derangements in the body's electrolytic pattern. To avoid this, the practitioner must have a more than nodding acquaintance with basic salt and water physiologic chemistry.

Other potentially seriously toxic preparations are the anticoagulants, which must be dispensed with the strictest of laboratory controls.

The ganglion-blocking agents are possibly dangerous drugs, and uncomfortable hypotensive states may result if these are not given under optimal conditions. Likewise the acetyl-choline blocking drugs have been responsible for some serious accidents, and an occasional fatality.

Even the ubiquitous vitamin is not entirely free from harm, if given in doses very little greater than those ordinarily prescribed. Vitamin D particularly, has

(Continued on page 550)

ORIGINAL ARTICLES

ABNORMAL POTASSIUM METABOLISM*

Rowland D. Goodman, 2nd, M.D., East Orange, N. J.

In recent years biochemists have called the attention of clinicians to the importance of aberrations in potassium metabolism in a variety of clinical states. Before proceeding to a consideration of potassium itself, however, it is worthwhile to review briefly the basic concepts of electrolyte physiology.

In dealing with serum electrolytes chemists talk in terms of equivalents, and milliequivalent solutions. Our first task, then, is to understand these terms.

Molecular weight is a substance's weight expressed in terms of its atomic weights. It is equal to the sum of the weights of its component atoms. For example, the molecular weight of sodium hydroxide equals 23 (Na) plus 16 (O) plus 1 (H) for a total of 40. (See Table I) One mole, or Gram molecule, is the weight (in Grams) according to the molecular weight; e. g., 40 Grams of NaOH equal one mole. A solution containing one mole is called "molar"; for example, a molar solution of NaOH contains 40 Grams.

TABLE I. ATOMIC AND EQUIVALENT WEIGHTS OF CLINICAL IMPORTANCE
(Approximate Values)

Atom	Atomic Weight	Equivalent Weight	Valence
H	1	1	1
O	16	16	2
Na	23	23	1
Cl	36	36	1
K	39	39	1
Ca	40	20	2

If a solution containing one mole (40 Grams) of NaOH is added to a solution containing one mole of HCl (37 Grams), these solutions will neutralize each other. In terms of ionization, they are therefore, equivalent, even though the basic solution (NaOH) contains 3 more Grams than the acidic (HCl) one. By definition, if the amount of a substance in Grams equals its molecular weight, the amount is said to be one "equivalent". Since the term "milli" denotes 1/1000, a milliequivalent (Meq.) is defined as one thousandth of an equivalent. Returning to our example, 40 Grams of NaOH is one "equivalent", 40 milligrams, is one "milliequivalent". This definition is valid only in the case of monovalent atoms, carrying a single ionic charge, whether positive (cations) or negative (anions). With bivalent elements (calcium for example) only half as much is needed to neutralize an equivalent amount of acid; hence its equivalent weight is one half its atomic weight (See Table I).

The relationship between weights expressed in milligrams and milliequivalents is shown by the following equation:[1]

$$\text{Concentration in Meq/L.} = \text{Concentration (mg./100 ml.)} \times \frac{10 \times V}{M}$$

M = Molecular weight

V = Valence

Carbon dioxide is an exception, since it is a gas. Volumes per cent is the number of cubic centimeters dissolved in 100 cubic centimeters of plasma and, in the case of carbon dioxide, bound there by the base. Since a mole of any gas occupies the same volume under standard conditions of temperature and barometric pressure, namely 22.26 liters, one "equivalent" of carbon dioxide occupies 22.26 liters, and one milliequivalent occupies 1/1000 of that space, or 22.26 cubic centimeters. Therefore, dividing the number of cubic centimeters of carbon dioxide (volumes per cent) in a hundred cubic centimeters of blood by 22.26 gives Meq./100 c.c. and multiplying by ten expresses the results in Meq./liter. In dealing with serum electrolytes, the practice is to express solutions in terms of a liter instead of 100 cubic centimeters.

* Presented April 9, 1951, at the East Orange (N.J.) General Hospital Staff Conference.

1. Ham, T. H.: *A Syllabus of Laboratory Examinations in Clinical Diagnosis*, Cambridge, Harvard University Press (1950).

Since blood plasma is essentially a neutral solution, with a pH between 7.35 and 7.45, the total number of anions (base) and cations (acid) must be equal, when measured in milliequivalents. Table II shows the acid-base balance of normal plasma, and it will be noted that a balance is reached between the acid and base columns. In this paper, attention is focussed on the second cation, potassium.

TABLE II. ACID-BASE BALANCE OF PLASMA[2]

Base	Meq/L.	Acid	MeQ/L.
Na	142	CO_2	27
K	5	Cl	103
Ca	5	HPO_4	2
Mg	3	SO_4	1
		Organic	
Total	155	Acids	6
		Protein	16
		Total	155

POTASSIUM METABOLISM

Potassium is normally ingested in daily amounts of 70 to 100 milliequivalents. All potassium absorbed from the gastro-intestinal tract is metabolized and excreted by the kidneys; none is stored. There is no renal mechanism for conserving potassium, so that 70 to 100 milliequivalents are lost daily in the urine. Potassium is also present in the gastro-intestinal secretions in concentrations ranging from 10 to 40 milliequivalents per liter, with approximately 10 Meq. lost daily in the feces.

The potassium absorbed from the gastro-intestinal tract is distributed in the serum and cells. The tissue cells contain about 150 Meq. per liter of potassium, or about 23 times the serum concentration.[3] Red blood cells contain 150 milliequivalents per liter of potassium. This electrolytic situation is obviously unstable since there is a marked imbalance of the same cation on opposite sides of the permeable cell membrane. This unstable equilibrium is maintained by the oxidative energy of the cells.[3] Weller and Taylor,[4] using radioactive potassium as a tracer, have reported that the potassium of the red cells is constantly being interchanged with that of the plasma. The energy for this interchange is derived from the metabolism of glucose. A millimol of glucose is required for each millimol of potassium that enters the cells. Potassium metabolism is also related to acetylcholine metabolism. That is why abnormal serum and cellular levels of potassium are reflected by neuromuscular symptoms and evidence of abnormal cellular metabolism, for example, in the heart.

The actual concentration of potassium in the serum is the resultant of several factors, among which are (a) intake of the electrolyte in the food, (b) the volume of the extracellular space in which it is dissolved, (c) addition and subtraction of potassium in the extracellular space from cells, either by their catabolism or anabolism and (d) renal output. Again it should be pointed out that as long as renal function is normal, potassium is eliminated at a constant rate, regardless of the intake, or its serum concentration. Unlike glucose, there is no renal threshold for potassium.

In addition, the corticosteroids of the adrenal cortex influence the excretion or retention of potassium, its excretion being promoted by the action of these hormones.

Hence, it can be seen that variations in the factors just enumerated will be reflected by a change in the serum concentration of potassium. Before considering the physiologic effects of hyperpotassemia and hypopotassemia, it is important to observe how these changes are brought about.

Increases in the concentration of potassium result from:

(1) Inadequate renal excretion, such as oliguria or anuria;
(2) Dehydration with contraction of the extracellular volume;
(3) Adrenal cortical deficiency, as in Addison's disease, and
(4) Tissue breakdown or anoxia.

Hypopotassemia results from:

(1) Limitation of food intake;
(2) Dilution of extracellular fluid with potassium-free solutions;
(3) Loss *via* the gastro-intestinal tract;
(4) Adrenal cortical hyperactivity;
(5) Increased renal excretion, and
(6) Glucose uptake by the cells (See Table III).

2. Gamble, J. L.: *Chemical Anatomy, Physiology and Pathology of Extracellular Fluid,* Department of Pediatrics, Harvard Medical School (1939).
3. Hoffman, W. S.: Journal of the American Medical Association, 144:1157 (Dec. 2, 1950).
4. Weller, J. M., and Taylor, J. M.: Annals of Internal Medicine, 33:607 (Sept. 1950).

TABLE III A. CONDITIONS PRODUCING HYPERPOTASSEMIA

Physiologic State	*Clinical Condition*
1. Oliguria or anuria	Advanced renal disease Lower nephron nephrosis Nephrosis Shock
2. Dehydration with contraction of extracellular volume	Dehydration Diabetic Acidosis
3. Adrenal cortical deficiency	Addison's disease
4. Tissue breakdown	Anoxia Severe infection

TABLE III B. CONDITIONS PRODUCING HYPOPOTASSEMIA

1. Limitation of food intake	Starvation Intestinal obstruction Protracted vomiting Postoperative status small intestine surgery Diarrhea Fistula formation Steatorrhea Cation exchange resins†
2. Increased renal excretion	Diuresis Mercurial diuretics to excess Nephrosis Acidosis secondary to diabetic ketosis, uremia, starvation
3. Adrenal cortical hyperactivity	Administration of ACTH, cortisone, or DCA to excess Cushing's Syndrome
4. Dilution of extracellular fluids with potassium-free solutions	Intravenous saline Treatment of diabetic acidosis
5. Gastro-intestinal loss	Vomiting, diarrhea, cation exchange resins†
6. Glucose uptake by cells	Insulin therapy of diabetic coma

In the course of a single disease process there may be significant changes in the serum potassium levels.

A variety of gastro-intestinal disturbances produce states of abnormal potassium metabolism, usually leading to hypopotassemia. Thus, there may be an inadequate consumption of potassium, as in starvation, bulbar poliomyelitis, intestinal obstruction, protracted vomiting, postoperative states, diarrhea, fistula formation, steatorrhea, and the administration of cation exchange resins† which absorb the potassium and carry it out in the feces. In addition to an inadequate intake of the potassium ion there may be actual loss of the small amount of potassium normally present in the succus entericus. This is found most frequently in excessive and prolonged vomiting, diarrhea, the use of gastro-intestinal suction apparatus, et cetera. When it is remembered that the kidneys continue to eliminate potassium regardless of the intake, or lack of it, it is easily seen[5] how a state of potassium depletion[6] will rapidly result.[7]

After potassium is absorbed from the gastro-intestinal tract its concentration in the serum (which reflects its concentration in the extracellular fluids) is subject to a variety of influences, including the volume of the extracellular space, the action of the adrenal

†The newer cation exchange resins currently being marketed contain a potassium cycle, to reduce or eliminate this undesirable feature.

5. Darrow, D. C.: Texas Reports on Biology and Medicine, 5:29 (1947).
6. Elkington, J. R., and Tarail, R.: American Journal of Medicine, 9:200 (August 1950).
7. Lans, H. S., Stein, I. F., Jr., Becker, R. J., Hoyne, A. L., Meyer, K. A.: Journal of the American Medical Association, 146:1017 (July 14, 1951).

corticosteroids, and the metabolic state of the cells.

In states of dehydration, such as in diabetic coma, there is contraction of the extracellular volume, with a rise in the concentration of serum potassium. Contrariwise, the serum level of potassium may fail with dilution of extracellular volume, as is produced by the administration of saline solution by vein. In Addison's disease, with absence of adrenal hormones, there is an increase in potassium concentration of the serum, which is augmented, in severe adrenal insufficiency, by an accompanying dehydration and acidosis. Hypopotassemia, on the other hand, may result from excess adrenocortical hormones, as in Cushing's Syndrome, or following the administration of cortisone or ACTH.

With excessive catabolism of the tissue cells, found in severe infections, shock, anoxic states, and diabetic acidosis, there is an accumulation of potassium in the extracellular fluid, due to its liberation from damaged cells. Conversely, the repair of cells, which occurs during the period of insulin administration in the treatment of diabetic coma, may lower the serum potassium level to a dangerous degree.

Finally, the effects of altered renal function on potassium metabolism must be considered. In cases of renal shutdown, e. g., oliguria or anuria, serum potassium levels are elevated. Excessive loss of potassium via the kidneys occurs during active diuresis, especially if this is marked, as in the diuretic phase of nephrosis, or following over-enthusiastic administration of mercurial diuretics.

CLINICAL APPLICATIONS

In excessive vomiting, intestinal fistulae, steatorrhea, and diarrhea there is loss of potassium from the gastro-intestinal tract,[3] which in the face of continued renal loss, leads to an ultimate state of potassium deficiency. Darrow[5] has shown, in addition, that in pyloric stenosis in infants there is an alkalosis which results from the vomiting of acid gastric juice. Accompanying this alkalosis there is a shift of sodium from extracellular fluids to the intracellular compartment. Since the loss of gastric juice carries potassium with it, there is also a hypopotassemia, which must be corrected[3] along with the treatment of acidosis, to replace the potassium that was lost from the cells.[6] This contribution by Darrow[5] illustrates the influence of sodium on the ultimate net state of potassium in the body.

In surgery of the gastro-intestinal tract, hypopotassemia may complicate the postoperative picture. Loss of potassium may occur with pre-operative vomiting, and be perpetuated by the postoperative administration of potassium-free saline solution. Further loss of potassium can result from postoperative gastric suction. Recently Eliel, *et al.*,[8] have called attention to the fact that the stress of surgery elicits a response in patients not unlike Selye's "general adaptation syndrome". This is characterized by stimulation of the pituitary-adrenal axis, with evidence of increased adrenocorticoid activity. This is another contributing factor to the production of a postoperative state of potassium deficiency.

Another common clinical situation in which deviations from normal potassium metabolism may alter the final outcome is in the treatment of diabetic acidosis. During the stage of severe acidosis there is cellular catabolism, dehydration, and insulin lack. These combine to produce an elevation of the serum potassium. Following treatment of the acidotic state with intravenous saline, insulin, and later glucose, there is a reversal of these factors, with dilution of the extracellular fluid, improved glucose metabolism, and cellular anabolism, so that potassium is transported from the extracellular fluid compartment into the cells. A state of potassium deficiency[9] is thereby produced[10] which may assume alarming aspects.[11]

Renal disorders are also a common source of abnormal potassium states. Oliguria or anuria, whether due to the terminal stages of acute or chronic glomerulonephritis, or to lower nephron nephrosis, results in failure of potassium to be excreted, and a state of dan-

8. Eliel, L. P., *et al.*: New England Journal of Medicine, 243:471 (Sept. 28, 1950) and *idem*, 518 (Oct. 5, 1950).
9. Frenkel, W., Groen, J., and Willebrands, A. F.: Archives of Internal Medicine, 80:728 (Dec. 1947).
10. Nicholson, W. W., and Branning, W. S.: Journal of the American Medical Association, 134:1292 (Aug. 16, 1947).
11. Holler, J. W.: Journal of the American Medical Association, 131:1186 (Aug. 10, 1946).
12. Strauss, M. B.: New England Journal of Medicine, 239:693 (Nov. 4, 1948).

gerous hyperpotassemia may ensue.[12] In fact, clinically most instances of hyperpotassemia occur in situations of renal shutdown.

Although cardiac disease itself rarely produces states of abnormal potassium metabolism, the use of mercurial diuretics promotes the excretion of potassium as well as water and sodium. In the presence of renal disease, this may result in clinical hypopotassemia. Cation exchange resins, unless protected by a potassium cycle, absorb potassium to a degree greater even than sodium,[13] and their injudicious use may thus lead to an excessive loss of potassium.[14]

Finally, a word should be said about periodic familial paralysis, a rare neurologic disorder marked by periods of paralysis associated with low serum potassium, and relieved by its administration.[15]

CLINICAL MANIFESTATIONS

Abnormalities of potassium metabolism produce definite clinical syndromes. It is believed that hyperpotassemia, with its cardiac effects, is probably the chief cause of the fatal outcome in uremic states. Hypopotassemia is responsible for the failure to obtain an optimal response in the treatment of diabetic acidosis, for many of the symptoms during the postoperative state, and for mortalities in infantile diarrhea.

Symptoms of hypopotassemia[6] are: extreme muscular weakness, anorexia, lethargy, intestinal distention, pulmonary edema, nausea, vomiting, and abdominal cramps.[8]

The symptoms of hyperpotassemia also include weakness, followed by flaccid paralysis of the extremities, with loss of tendon reflexes, and progressive difficulty in phonation and respiration.[16]

Because of the similar symptomatic features of hypo- and hyperpotassemia and the difficulty in performing serum potassium levels as a routine clinical procedure, another means for following variations in serum potassium concentrations has been sought. The electrocardiogram has been found to give some information. The following electrocardiographic changes have been noted in hyperpotassemia: increased amplitude of T waves with narrowing of their bases;[16] widening of the QRS complex;[17] disappearance of P waves;[18] and finally, cardiac standstill.[3]

On the other hand, the electrocardiographic changes of hypopotassemia consist of progressive lowering and broadening of the T waves;[16] lengthening of the QT interval;[17] depression of the ST segment; and appearance of a prominent U wave.[19]

DIAGNOSIS

Since the symptoms of variations in serum potassium levels are not characteristic (and may be part of the associated underlying disease process) the diagnosis of abnormalities in potassium metabolism depends on an awareness of the clinical states in which they occur, and the knowledge of the basic pathologic physiology. For example, prolonged weakness, and "fish-mouth breathing" in a patient who has apparently done well following diabetic coma will arouse the suspicion that a potassium deficit exists. When available, serum potassium, sodium and carbon dioxide determinations are of value. It should be emphasized, however, that serum potassium concentrations do not give an accurate picture of the over-all needs of the body for this cation, and many clinicians prefer to rely on the clinical picture and serial electrocardiographic changes.

TREATMENT OF POTASSIUM ABNORMALITIES

The treatment of hypopotassemia is, in general, more satisfactory than that of hyperpotassemia. Since increased serum potassium concentrations occur most commonly in states of renal failure, it may be imposible to correct the potassium defect, especially in chronic renal disease. However, in acute renal shutdown, it has been suggested that the use of cation exchange resins (without the potassium cycle) will reduce the serum potassium level by its elimination through the gastro-intestinal

13. Hay, S. H., and Wood, J. E., Jr.: Annals of Internal Medicine, 33:1139 (Nov. 1950).
14. New England Journal of Medicine, 243:459 (Sept. 21, 1950).
15. Gass, H., Cherkasky, M., and Savitsky, N.: Medicine, 27:105 (Feb. 1948).
16. Merrill, J. P., *et al.*: Annals of Internal Medicine, 33:749 (Oct. 1950).
17. Bellet, S., *et al.*: American Journal of the Medical Sciences, 219:542 (May 1950).
18. Martin, H. E., and Wertman, M.: American Heart Journal, 34: (Nov. 1947).
19. Ernstene, A. C., and Proudfit, W. L.: American Heart Journal, 38:260 (Aug. 1949).
20. Elkington, J. R., *et al.*:American Journal of the Medical Sciences, 220:547 (Nov. 1950).

tract. Another method[20] of attacking this problem is the use of the "artificial kidney" and its analogues, such as peritoneal or intestinal lavage.

Hypopotassemia is best treated by the oral administration of potassium chloride, given in orange juice or ginger ale, 2 Grams, three to five times daily. If it is imperative to administer it by vein a simple solution such as potassium chloride, 6 Grams, and sodium chloride 4.3 Grams per liter may be used, or other solutions, e.g., "Darrow's", are recommended. Intravenous potassium must be given very slowly, to avoid cardiac toxicity.

SUMMARY

1. The basic concepts of electrolyte chemistry have been reviewed.

2. The normal metabolism of potassium has been described.

3. The pathologic physiology of hyperpotassemia and hypopotassemia has been outlined.

4. The clinical states in which abnormal metabolism of potassium occurs have been presented, with a discussion of pathogenesis.

5. The diagnosis and treatment of hyperpotassemia and hypopotassemia have been discussed.

265 South Harrison Street

SPONTANEOUS HEMATOMA OF THE RECTUS ABDOMINUS MUSCLE SIMULATING ACUTE APPENDICITIS

Gene G. Carp, M.D.,* Union, N. J.

Spontaneous hematoma of the rectus abdominus muscle is an uncommon but not rare condition and is a definite clinical entity. It is the result of rupture of one of the epigastric vessels or the fibers of the rectus abdominus muscle itself, and often presents symptoms and findings simulating those of an acute abdominal catastrophy. Causes are classed by Teske[1] as follows:

1. Traumatic
   a. External violence
   b. Internal violence
2. Cases associated with pregnancy
3. Cases occurring during the course of a disease
4. Idiopathic

In the first group fall apparently healthy individuals with normal musculature who develop a hematoma as a result of violence: external (by a direct blow) or internal (as caused by muscular effort in lifting, jumping, straining, etc.). Group 2 includes cases[2] occurring during pregnancy, labor, or in the immediate puerperium. Group 3 consists of cases occurring during the course of another disease such as typhoid, influenza, or blood dyscrasias; and the idiopathic category is reserved for cases occurring spontaneously, initiated by cough or turning in bed, probably due to degenerative changes in the blood vessels[1] or muscle tissue.

This disease is relatively uncommon in any race. It is particularly rare among Negroes. The ratio of females to males is 3 to 1. It may occur at any age during adult life. In the 100 cases reviewed by Teske[1] the average age was 47.

The hematoma occurs more frequently on the right side in right handed individuals due to increased strain[3] exerted on that side. It occurs most frequently at the portion of the rectus where the sheath is deficient posteriorly.

Earliest and most constant symptom is acute abdominal pain. The pain may be localized to the area of immediate hemorrhage; or it may be generalized. Intensity of the pain is usually

---

* Chief surgical resident, Newark Beth Israel Hospital.

1. Teske, Jacob: American Journal of Surgery, 71:689 (1946).
2. Rose, David: New England Journal of Medicine, 234:582 (1946); *also* Torpin, Richard: American Journal of Obstetrics and Gynecology, 46:557 (1943).
3. Vigdoff, Jack: American Journal of Surgery, 66:132 (1943).

proportional to the size of the hematoma. At times discoloration of the abdominal skin is noted and a mass may be palpated. Nausea and vomiting may occur.[4]

In small hemorrhages involving only minor blood vessels, the only finding may be sharply limited spasticity directly over that area of the rectus. If a mass presents, a sizable hemorrhage must have occurred. The tenderness here is circumscribed; the surrounding tissue uninvolved by hematoma is usually not tender. This is an important finding and should aid in excluding intra-abdominal pathology.

The mass usually is oblong and can be moved from side to side[4] early in the course. An enlarging mass is indicative of active bleeding.

Should hemorrhage take place in the area where the rectus sheath is deficient posteriorly, peritoneal irritation may occur with resultant generalized rigidity; or the blood may extravasate downward and a mass may be felt *via* rectum or vagina.[5] There may even occur direct extension into the peritoneal cavity with findings on physical examination compatible with peritonitis. Leukocytosis may be present.

Differential diagnosis involves intra-abdominal conditions and lesions of the abdominal wall. The lesions of the abdominal wall most commonly mistaken for hematoma are: irreducible hernia, sarcoma, desmoid, and fibroma; less commonly gumma, actinomycosis, and tuberculosis. Intra-abdominal conditions that have been mistaken for hematoma range from acute appendicitis to intestinal obstruction, including ovarian cyst, acute cholecystitis, ventral hernia, ectopic pregnancy and hydronephrosis.

In many cases the correct diagnosis is not made simply because the surgeon never thought of hematoma of the rectus sheath. A tender abdominal mass following a bout of coughing or straining or physical exertion of even mild degree should make one suspect the possibility of hematoma of the rectus sheath.

If the hematoma is of small size and no active bleeding is present, conservative treatment is indicated. This consists of cold applications for one or two days, bed rest, and sedation, followed by the application of heat. In hematoma of considerable size (or when active bleeding is manifest by increasing size of the abdominal mass) surgery is needed to evacuate the clot and stop the bleeding. Abscess formation in a conservatively treated patient is an indication for surgery. Exploration is also warranted if the diagnosis is obscure.

The incision is made directly over the tumor mass. All clots and free mascerated muscle tissue are removed. Bleeding points are ligated. If there has been no intra-peritoneal extension of the hematoma and no indication for abdominal exploration exists, the peritoneal cavity need not be opened. Drainage is needed if oozing of blood is present.

The mortality rate of the operation is four per cent.[1]

CASE ONE

A 52 year old white male[6] was admitted to the Newark Beth Israel Hospital on September 14, 1950, complaining of severe substernal oppression which had begun suddenly two hours prior to admission. This pain was described as a "severe pressing" in his chest and was accompanied by shortness of breath. The pain did not radiate. Respirations increased in rate and the skin became pale and cool. There was no previous history of any similar attack. He was a well developed and well nourished white male lying in bed in obvious distress. Pulse was 85, respiration was 18, blood pressure was 128/68, temperature was 98.8. The skin was ashen, cool and moist. The lungs were clear. Examination of the heart was negative, except that electrocardiography suggested myocardial infarction. The abdomen was negative. A diagnosis of coronary thrombosis was made.

The patient was treated by the usual measures, plus Dicumarol.[7] Prothrombin time was kept between 25 and 35 per cent. The course was satisfactory and the patient did well until October 2, when he complained of lower abdominal cramps which were relieved only temporarily by a bowel movement. The ascending colon in the right lower quadrant felt spastic and somewhat tender for the first time. This cramping subsided but the patient had pain on turning from side to side. Two days later, a tender "sausage" mass was felt in the right lower quadrant. Although there had been no history of appendicitis, we thought this might be an appendiceal abscess. At this time the prothrombin level was 28 per cent. Leucocyte count was 9800. On the next day gross hematuria appeared. Rectal examination was negative. There was no costovertebral angle tenderness. The patient complained of anorexia and transient nausea. Dicumarol[7] was discontinued. A consultant concurred in the impression of appendiceal abscess. Conservative

4. Danzis, Maximilian: Surgical Clinics of North America, Page 1421 (1926).
5. Strengle, George: American Journal of Surgery, 55:594 (1942).
6. Patient of Dr. L. Kraemer and Dr. Maximilian Danzis.
7. Dicumarol is the collective and registered trademark of the Wisconsin Alumni Research Foundation.

treatment was recommended due to the cardiac status. Antibiotics were administered. The hematuria disappeared by October 11, and the pain and size of the right lower quadrant mass decreased gradually.

On October 30, surgery was decided upon since the mass was still present. Under spinal anesthesia we did a laparotomy and noted a large collection of dark colored blood between the layers of the rectus sheath and the peritoneum. The muscle seemed to be infiltrated with some blood clots. The appendix was atrophied and retrocaecal. There was no intra-peritoneal bleeding. The appendix was removed. Postoperative diagnosis was hemorrhage into the right rectus sheath probably due to Dicumarol.[7] The pathologic report was that of an obliterative appendix containing a neuroma. Postoperative course was uneventful and the patient was discharged on November 7 with the wound well healed and the infarction quiescent.

CASE TWO

A 71 year old white male[8] was admitted to the Newark Beth Israel Hospital on November 6, 1950, with a twelve hour history of sudden right lower quadrant pain associated with constipation and nausea. The pain persisted and the nausea led to one bout of vomiting. There were no previous episodes of this nature. He had been apparently well until this episode. There was no previous surgery. He was an obese white male in acute distress complaining of abdominal pain. Temperature was 99, pulse was 88, and blood pressure 120/74. Positive findings were limited to the abdomen which presented board-like rigidity with marked generalized tenderness. No organs or masses were palpated. The impression was that of a ruptured appendix and immediate surgery was advised.

Under spinal anesthesia on the day of admission the abdomen was opened. There was considerable hemorrhage. The rectus fascia was mottled. Under the fascia there was an extensive amount of free and clotted blood extending through the right rectus muscle and involving a large area of lower abdomen. There were free blood and clots in the peritoneal cavity. The appendix was kinked in the center by a short mesentery. The appendix was removed. Postoperative diagnosis was spontaneous hemorrhage into the right rectus sheath. Pathologic report was that of an appendix showing fecal retention and distention.

It was decided to study this patient hematologically in an attempt to discover the cause of this spontaneous hemorrhage. He had a platelet count of 1,050,000. Three days later the hematologist[9] reported as follows: "Red cells 3,430,000, hemoglobin 71 per cent, leucocytes 16,800, polymorphonuclear leukocytes 81, stabs 8, lymphocytes 2, monocytes 7, eosinophiles 1, platelets 690,000. The elevated platelet count and clinical picture are compatible with a diagnosis of polycythemia vera. The abdominal wall hemorrhage may be the result of local thrombosis with subsequent rupture." The patient's postoperative course was complicated by abdominal distention, atelectasis, and mental confusion, but he responded to treatment. Three weeks postoperatively he was afebrile, the abdomen was soft and the wound well healed except for slight drainage from the lower portion of the incision. The patient was discharged on November 24.

Spontaneous hematoma of the rectus abdominus muscle is discussed with the presentation of two cases, one due to a blood dyscrasia and the other due to a hypoprothrombinemia from the use of Dicumarol.[7] This is not a rare condition occurring three times more frequently in females than in males. The incidence among the colored race is very low; a wide age group in adult life is affected.

The etiology is discussed and a classification given. The most common presenting symptom is sudden pain In most cases, a tender mass is present in the region occupied by the rectus muscle.

Differential diagnosis involves intra-abdominal conditions and lesions of the abdominal wall. These are enumerated.

The diagnosis is not made more often because this entity is not kept in mind. The treatment is conservative in small hematomas; large or enlarging hematomas should be treated surgically.

1830 Manor Drive

8. Patient of Dr. Edward Steiner.
9. Dr. Lester Goldman.

AWARD FOR STERILITY RESEARCH

The American Society for the Study of Sterility announces the 1952 contest for the most outstanding contribution to the subject of infertility and sterility. The winner will receive one thousand dollars. The essay will be read at the 1952 meeting of the Society. Essays submitted must be received not later than March 1, 1952. For full particulars address The American Society for the Study of Sterility, 20 Magnolia Terrace, Springfield, Mass.

QUINTUPLET PREGNANCY

Arthur C. Lawrence, M.D., Paterson, N. J., and
A. J. Pauli, M.D., Louisville, Ky.

One of the most intriguing phenomenon in human reproduction is that of plural births. The greater the number of infants born at one confinement the more intriguing the case.

In 1937, MacArthur and Ford[1] collected 60 authentic cases of quintuplet births from the literature of the past two centuries. Of the total number, in only forty-five was there sufficient information to render them useful for analysis. A year later, Ford and Caruso[2] reported two newly discovered cases of quintuplet births. The first set was born near New Glasgow, Nova Scotia on February 15, 1880; the second set (three males and two females) was born on May 14, 1914, in Palermo, Italy, to a 40 year old multipara.

Rau, Aiyar and Mathew[3] in 1940, published the record of a premature delivery of quintuplets to a Hindu during her sixth gestational month. The following year Kettle[4] reported quintuplets born in Wisconsin on February 13, 1875, to a twenty year old primipara.

Olivella de la Vega[5] in 1941, reported a quintuplet set born to a 19 year old Cuban primipara on December 25, 1939.

Filho[6] reported the birth of quintuplets to a white 28 year old multiparous Brazilian on November 10, 1941.

The only set of quintuplets (besides the Dionne) known to have survived, was born to an Argentinean on July 14, 1943, and reported by Beruti[7] in 1944.

Victor do Amaral[8] in 1946, reported the birth of quintuplets to a 38 year old Brazilian multipara on November 21, 1944.

In 1945 a set of quintuplets was reported to the department of Vital Statistics in Washington, D. C. All five of these female babies died shortly after birth. The medical report was signed by Dr. B. K. Bailey and Dr. Aris Tee Allen. No further information concerning the family history, mother, or infants could be obtained from the hospital or doctors.[9]

While preparing this paper, I found a newspaper notice[10] concerning the birth of quintuplets in Taylorsville, Kentucky, on February 14, 1914. The story of the birth in a barn was reconstructed for me by Dr. J. F. Furnish who was called to attend a 23 year old wife of a tenant farmer. She had had no previous medical attention. She was a gravida II with no history of previous multiple births. On the father's side there was history of twins. The patient was found in active labor and preparation was made for a multiple birth delivery. At 11 p. m. the first boy was born spontaneously. There was little bleeding and labor stopped. At 1 a. m. the second male was born and at 4 a. m. the third was delivered by breech extraction. At 5:30 a. m. two macerated female fetuses were delivered. They seemed to have been dead about three days. The gestational age of the males was 8 months. The weight of the females was not known and although they appeared much smaller, they were fully developed. The first placenta delivered was the larger and had three cords. The second was attached to the macerated fetuses by a single cord which bifurcated shortly after leaving the placenta. The infants weighed about five pounds each and were cared for in a home-made incubator. One of the males died from complications following whooping cough at the age of two. The remaining two are still alive. They were probably of dizygotic origin. The mother has not been pregnant since.

1. MacArthur, John W., Ford, Norma: The Biological Study of Dionne Quintuplets, An Identical Set, Toronto, The University of Toronto Press, p. 3-7 (October 1937).
2. Ford, N., Carusa, G.: Two Unrecorded Cases of Quintuplet Births, Canadian and Italian, Can. Med A. J., 39:333 (1938).
3. Rau, R. K., Aiyar, A. A., Mathew, T. V.: Quintuplets, Record of a Premature Delivery, Brit. M. J., 1:127 (1940).
4. Kettle, W. G.: Unrecorded Case of Quintuplet Birth, Wisconsin 1875, West. J. Surg., 49:636 (Nov. 1941).
5. Olivella, J. Ramirez, de la Vega, A. Marrero: Quintuplet Pregnancy, with case report, Rev. cubana de obst. y ginec., 3:22 (January 1941).
6. Filho, M. I. Carmargo: Quintuplets, Rev. de genic. e d obst., 1:185 (March 1942).
7. Beruti, J. A.: The Delivery of the Argentine Quintuplets. La Semana medica, 1:689 (1944).
8. Filko, V. do Amaral: Quintuplets, Rev. de obst. e ginec. de Sao Paulo, 7:359 (Feb.-Apr. 1946).
9. Marchetti, Andrew A., M.D.: Personal Communication.
10. Courier-Journal, Indiana Section, Louisville, 1. clx: new series (February 15, 1914).

CASE REPORT

Our case was that of a 33-year old white female, who was admitted to the hospital* on March 11, 1948, complaining that she had a "sudden blowing up" of her stomach, and could not breathe. Onset of menstruation had occurred at age 14, and the cycle was regular every 28 days with a moderate flow which lasted five days. There were no serious past illnesses. One pregnancy terminated after 33 weeks gestation in a premature delivery of a normal female weighing five pounds. In 1947, a second pregnancy terminated in a spontaneous early abortion. An aunt and her maternal grandmother had died of diabetes. Her paternal grandmother was a twin. She was first seen by her family physician (A.J.P.) on January 9, 1948, and again on two subsequent prenatal visits. Her last normal menstrual period had been October 28, 1947, and her date of expected confinement was calculated to be August 4, 1948.

Prior to onset of her present complaints, the prenatal course was complicated by excessive vomiting and loss of weight of seven pounds. After the sixth week there was no gastro-intestinal distress other than constipation and "gas".

No abnormal changes were found in routine urine analysis, and her blood pressure ranged between 130/70 and 110/60.

Early in March, loss of appetite, swelling of both ankles, and a re-occurrence of nausea and vomiting became evident. She gained eight out of a total of thirteen pounds within three weeks. On March 9 a scanty amount of urine was voided; restlessness, lethargy, and dyspnea became apparent. By the next day, nocturnal dyspnea and orthopnea became alarming. During that night she thought her abdomen had filled up so fast that it had taken her breath away. Backache was severe.

Physical examination revealed a white female whose age was thirty-three, but who appeared to be fifty. Her cheeks were deeply sunken; her skin dry and pale; her respirations labored and shallow. The pulse rate was 120, respirations 30, temperature 98, and blood pressure 100/50. No positive findings were noted in the examination of the head, eye, ear, throat, neck or chest. Lungs were clear. The left diaphragm was markedly elevated. No cardiac enlargement was noted. An accentuated first mitral sound was heard. The abdomen was overly distended, with her skin tightly stretched and tense. The surface was shiny and pink. No fetal heart sounds nor placental souffle were heard, nor were fetal parts palpable. Slight pedal edema and pitting edema in the lumbar region were present.

Rectal examination disclosed a tense cul de sac and adnexal regions. The cervix was soft, not effaced, but the external os was dilated two centimeters. The vulval area was edematous and blue. A mucoid discharge was present at the vaginal introitus, but no blood.

The laboratory findings were consistent with a moderate secondary anemia and hypoproteinemia.

The clinical course was uneventful. Symptomatic relief was noted following a high enema; orthopnea and dyspnea, surprisingly, decreased. Other treatment was directed toward increasing the plasma protein, combating anemia, and maintaining sedation. Large doses of ammonium chloride were given, as advocated by Abrams[11] to decrease hydramnion.

Antero-posterior and lateral abdominal x-rays were taken (Figure 1). They were interpreted as "definite indication of twin pregnancy with possibility of triplets. The shadows suggesting a third fetus are somewhat indefinite due to motion of the fetus during exposure."

Three days after admission, the patient was discharged from the hospital with the diagnosis of acute hydramnion complicating a multiple pregnancy, possibly triplets. She was placed on a high vitamin and mineral diet, and advised to maintain absolute rest.

Figure 1A. Prenatal x-rays of quintuplets—Lateral view—White inserts indicate position of fetal heads. The fifth head was probably blocked out by the pelvic bones.

At home, activity was limited but not absolutely restricted. Her dyspnea became progressively severe and abdominal pressure painful. On March 23, active labor began and contractions occurred every 10 to 15 minutes. At 4 a. m. on March 24, the "waters" broke and the patient called her family physician. When he arrived he found an arm already prolapsed.

At 8:30 a. m., she was readmitted and prepared for the delivery room. Her general condition was good. Contractions were mild and irregular. On sterile vaginal examination a fetus was felt in the vagina. The right shoulder was presenting and the right arm prolapsed. At 8:45 a. m. a dead female fetus was easily delivered and

*Saint Joseph Infirmary, Louisville, Kentucky.

11. Abrams, A. A., Abrams, S. B.: Successful Treatment of Hydramnion with Ammonium Chloride, Am. J. Obst. and Gynec., 52:299 (Aug. 1946).

the cord tied close to the introitus. Since there were no signs of placental separation or bleeding, no further examination or manipulation was carried out. The patient was returned to the labor room for observation.

At 10:30 a. m. severe contractions re-occurred and at 11 a. m., the second "bag of waters" ruptured spontaneously. Although the contractions again subsided, it was decided to return the patient to the delivery room. Contractions increased in severity and the cervix became effaced and dilated to seven centimeters. At 1:40 p. m. the second fetus was delivered by breech extraction (frank breech). The third amniotic sac was ruptured artificially as were the fourth and fifth.

Figure 1B. Prenatal x-rays of quintuplets—Ant.-Post. View.

The remaining fetuses were all frank breeches and were easily extracted. Although all cords pulsated, and a heart beat could be felt, only one made an abortive attempt at breathing.

Two placentae were present; each one separated completely and was easily expressed by a modified Crede maneuver. No anesthesia was used during the entire delivery. The patient cooperated well. Her amazement at the phenomenon was expressed by these words: "Are they still coming out?".

Bleeding during the third stage was estimated at 200 cubic centimeters. The uterus contracted firmly after ergotrate grains 1/320 was given intravenously, and did not have to be repeated. The mother was returned to her bed in excellent condition. One hour postpartum there was no active bleeding; the uterus was two fingers above the umbilicus, but firm and contained no clots; blood pressure was 110/70.

The first stage of labor lasted five hours; the second stage five hours; third stage ten minutes. As each amniotic sac discharged its fluid, there was progressive relief of dyspnea. The quantity of fluid from each sac was not measured but each seemed to contain approximately the same amount.

Postpartum course was uneventful. The patient voided voluntarily; after pains were very mild. She was out of bed on the second day and discharged on the fourth postpartum day.

DESCRIPTION OF THE FETUSES

The development age of all fetuses was estimated at about 20 weeks. Two were male and three were female.

Their skin was very thin, smooth and glossy with the subcutaneous vessels visible. One fetus had an edematous arm, with cyanotic skin and nail bed. A fine fuzz covered the face and torso. Nails were present on the fingers and toes. Both eyelids were fused. The genitalia were normal and easily recognized. No anomalies were noted.

Figure 2.

No.	Sex	Crown Rump	Crown Heel	Weight	Placenta*	Remarks
1	Male	18 cm.	27 cm.	420 gm.	A	
2	Fem.	18 cm.	25.5 cm.	382.5 gm.	B	
3	Fem.	17 cm.	25.5 cm.	331.5 gm.	B	First born
4	Male	16 cm.	24.5 cm.	307.5 gm.	A	
5	Fem.	16 cm.	23.5 cm.	255 gm.	B	

*See Figure 4

Permission for an autopsy was not obtained, but x-rays of the fetuses were taken (Figure 3). They show that bone development was consistent with 20 weeks gestation. One fetus showed some air present in the trachea and lungs.

DESCRIPTION OF THE PLACENTAE

The first placenta was oval shaped, thick and well formed. It measured 26 centimeters in length, 13 centimeters in width, and 3.5 centimeters in thickness. The maternal surface was smooth and all cotyledons were in place and well formed. Two distinct umbilical cords entered the placenta. The blood vessels anastomosed freely on the surface before pene-

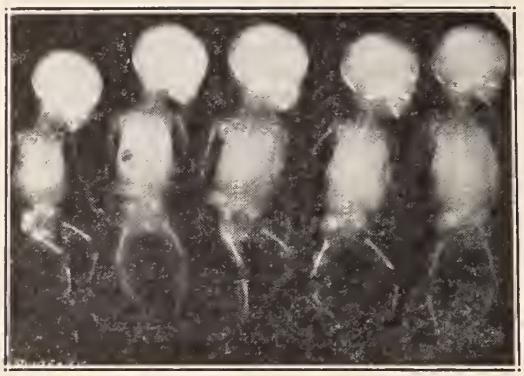


Figure 3. Postpartum x-rays of quintuplets.

Figure 4. Placentae from quintuplet pregnancy.

trating the organ. There was no clearly defined division of vessels into distinct halves, but the entire organ had a common circulation. Two amnions and one chorion could be demonstrated.

The second placenta was ragged in appearance. It was larger and flatter than the first. The cotyledons hung on to the vessels like grapes to the bunch. Three umbilical cords attached to the maternal surface. The circulation was common to the entire organ. No dividing septa could be located. Three amnions and only one chorion could be isolated. The organ measured 27 centimeters in length, 18 centimeters in diameter and 2 centimeters in thickness.

This case was diagnosed as quintuplet pregnancy which terminated by early spontaneous abortion. The set was probably dizygotic in origin; possibly one set of monozygotic triplets and monozygotic twins.

SUMMARY

1. Complete reports have been presented on two previously unreported cases of quintuplet pregnancy. A third case is only mentioned.

2. A total of 71 cases of authenticated quintuplet pregnancies have now been reported in medical literature.

210 East Thirty-Second Street, Paterson
1122 South Shelby, Louisville, Ky.

TOXIC EFFECTS OF MODERN DRUGS

(Continued from page 538)

produced dangerous disturbances in calcium metabolism.

Water and salt are such universally common substances that their presence is taken for granted, yet these two may produce harmful effects, if injudiciously administered by vein, or withheld by design.

Nor are the life-saving antibiotics entirely devoid of undesirable side effects. Streptomycin damages the vestibular apparatus if given in moderately large doses over a prolonged period. The Council of Pharmacy and Chemistry of the American Medical Association recently issued a warning concerning the possibility of fatal Monilia infection erupting after the suppression of other sensitive bacteria by some of the more modern antibiotics.

The list of new, potentially harmful drugs could be extended into every field and every branch of medicine. These drugs, in most instances, are extremely beneficial, and have extended therapeutic conquests to further horizons; but it must be pointed out that their administration requires an ever present understanding of their physiologic, pharmacologic, and toxic effects.

R.D.G.

PSYCHIATRIC PROBLEMS IN GENERAL PRACTICE

Alfred Bronner, M.D., Passaic, N. J.

The practicing physician usually feels uncomfortable with emotionally sick patients. Often his training in psychiatry has been inadequate. Frequently, and even unknowingly, the doctor might share the common prejudices of his time against psychiatrically ill patients. A mixture of pity, contempt and awe often leads the physician to deny the psychiatric problem. The practitioner may even hesitate to discuss it with the patient because he might be offended. The patient senses the physician's discomfort and feels reluctant to talk about his fears and other disturbing thoughts. While I know that the general practitioner must not deeply involve himself in the patient's problems, I find that a straight-forward, open, friendly discussion will never hurt the patient. He will be greatly assured by the doctor's willingness to be an unbiased, sympathetic listener.

Frankly psychotic behavior is usually recognized easily enough. Too often, however, nothing as dramatic as gross misconduct is found.

The patient may appear calm and rational, yet have a profound psychotic disorder which will come to light only when a certain line of interviewing is followed which will bring out, for example, ideas of reference (feelings of being looked at, or being talked about). The syndrome of depersonalization is expressed as feeling that one's body is changing, or, that the environment though familiar has an unreal, dreamlike quality. These symptoms (usually part of a schizophrenic process) are not just "imaginations" of the patient but evidence of a profound change. Attempts to challenge, ridicule or to dissuade the patient will fail and increase his distrust of the physician. In a psychoneurosis an apparently well person can also be severely disturbed. A patient of mine suffered from a severe phobia. Because of his great anxiety he was unable to leave the house alone. After some improvement in his phobia he had an intercurrent medical illness for which he saw his family physician. This physician had failed to recognize the patient's phobia initially. When he saw him again he remarked: "What's wrong with you? You look all right to me." Fortunately most physicians do not have such a limited view of illness and realize that our concepts of disturbed and sick functions must include the whole organism and not just physical illness.

Some doctors assume that if the patient knew he was ill (that is, if he had "insight") he could not be suffering from a psychosis. This view is incorrect. The patient's realization of having an emotional disorder can be a starting point in therapy, but it does not preclude severe mental illness. There are just as many neurotic disorders in which the patient defends himself against acceptance of his illness as there are psychotic ones. The patient's expressed fear of "going crazy" can be present in psychoneurosis as well as in psychosis. In the incipient psychotic breakdown, fear of insanity is frequently present. It is an expression of the patient's awareness of a profound change going on within himself. In neurotics the fear of losing one's mind is usually an expression of the patient's fear that he might lose control over an hitherto repressed sexual or aggressive drive. Gross distortions of reality are of course evidence of psychosis; but does not the neurotic individual, be he sensitive or aggressive, frequently misinterpret what others do to him? However, these distortions are more in the realm of the "probable" and "possible". They lack the quality of bizarreness.

What kind of guide does the physician need to establish the presence of a major or minor disorder? In addition to the presenting symptomatology he has to ascertain how the patient functions. What part of his life is affected? Is it his work, his home, his social activities that are impaired? Are all three of them involved and to what degree? How does he handle present day problems? In other words how disabled is he by his psychiatric illness? After establishing the extent of the disorder it is important to know what the patient has accomplished in his life—sometimes in spite of a long illness. It is obvious that

such accomplishments are not to be measured in terms of material success only, but much more so in the field of relationships such as marriage and friendship. Everything considered together will give a much better picture of a major or minor disorder than any diagnostic labeling. Such a concept of disturbed function will do much more for the physician's understanding and handling of a sick person.

Some of the patients the general practitioner sees have essentially "functional" symptoms such as mild irritability, insomnia and general restlessness. Such symptoms are also present in many psychiatric syndromes. The general guide given in the above paragraph ought to be helpful to determine the severity of the disorder. Many more patients have some somatic complaint. If the physician knows the patient from previous contacts he will recognize the disorder as "functional" and prescribe with the suggestion that the medication will help. With a new patient there will be a more or less extensive physical examination and then by excluding organic illness the physician will conclude that the disorder is "functional". He then often says to the patient: "I have tested and examined you and there is nothing wrong with you". The mildly anxious patient will be relieved and say "I am so glad doctor I feel much better already." But certain patients will resent such a statement. His symptoms are real enough to him. It is therefore much better for the physician to acknowledge that the patient's suffering is real, but that he has to the best of his ability not been able to find an organic illness to account for the patient's symptoms. He may say that there is a strong possibility that emotional conflicts might be at the bottom of patient's difficulties. Some patients are emotionally or intellectually unable to accept any such statement. They will become angry and resentful. The physician should accept such criticism calmly. He should re-emphasize that his opinion was based on a thorough study of the patient's symptoms. This will often act as a release which permits the patient to discuss some of his conscious problems and conflicts. However, it is important for the physician to know that there are always many psychologic forces which operate outside of the patient's awareness and that the patient's statement, "I don't know what could be bothering me" can be true enough.

All good medical practice is psychosomatic, since it considers the whole individual and tries to mobilize all the healing forces whether they are organic, psychologic or social. A good example is the current trend in obstetrics. Psychologic preparation is stressed. This makes prospective mothers proud and unafraid of delivery. The personnel of the obstetric ward are made aware of the importance of its attitude. They realize that anxious patients are not nuisances but human beings in distress. The presence of the husband in the labor room has been found reassuring and is now often permitted. The "rooming-in" of infants with the mother (at least in daytime) is another acknowledgment of the importance of psychobiologic needs both of mother and infant.

Our ideas about psychosomatic relationships are still speculative. We know something of the personality profiles and emotional conflicts of such illnesses as gastric ulcer, hypertension, asthma, and others previously considered purely "organic". Psychologic conflicts mediated through the vegetative nervous system create at first a disturbed physiology which later leads to anatomic changes. Organic therapy alone (such as the section of the vagus nerve in gastric ulcer) can hardly be considered causal because deep seated psychologic conflicts remain unresolved. They will find other symptomatic expression even if the vagus is cut. In these cases, the success of treatment will be greatly enhanced by the proper psychologic approach.

There is one illness which often is only somatic in its appearance, but it is essentially a psychiatric disorder. This is conversion hysteria. These patients present an apparently organic symptom such as blindness, paralysis of a limb, fainting spells, convulsions, et cetera. It is important to note that the symptoms affect the voluntary musculature and *not* the vegetative organs as in psychosomatic illnesses. Diagnosis should be made not by exclusion of organic illness, but on positive psy-

chologic findings which will reveal a certain character formation and specific intrapsychic conflicts.

The physician feels uncomfortable with people who are so disorganized as to scream, act panicky, or who are even openly hostile to his attempts to help. Such behavior is often described as "hysterical" although it has little to do with hysteria as described above. Generally speaking the doctor will find two types of excited patients. One is screaming for help and is most anxious to see the physician, whenever he feels frightened. Such people are usually reprimanded, told to "stop acting silly", that there is nothing to be afraid of. Since this does not help, the physician may refuse to see the patient and often expresses contempt for him. Such a patient deserves psychiatric care. Until such care is available the general practitioner can by his firm, but friendly and non-moralizing attitude do a great deal to calm him. In an emergency an intravenous injection of 2 to 4 cubic centimeters of 5 per cent Sodium Amytal* solution will stop the anxiety.

The other type of disturbed patient does not want to see the physician. He does not believe any one can help. He is deeply suspicious of help. This type of behavior can provoke resentment in the physician who is so willing to help and so rudely rejected by the patient. A better understanding will result when he realizes that the patient is in terror of anyone who approaches him. Frequently these patients know that something is profoundly wrong and that they belong in a hospital which they also fear. Often the relatives ask the physician to see the patient on a pretext. The patient can usually see through this scheme and his suspiciousness is increased. A frank approach is best. The physician can state that the patient is not well and in need of help. In this way, the doctor does not appear as an unfriendly agent of the family trying to trick the patient. Even this approach does not always get the desired result but it is well worth trying. The attitude of the first physician the patient sees might well establish the patient's attitude to others who later must treat him. Some patients are too disturbed to respond to attempts to gain cooperation. Then one has to take steps to hospitalize patient against his will. Any "punishing" attitude is to be avoided. Unfortunately our commitment procedures are still tinctured with the elements of a court trial. This increases the guilt of the patients who in their psychosis, may consider themselves guilty of great crimes. Disturbed patients can sometimes be spared hospitalization if electro-shock is promptly initiated.

In the eyes of the patient the physician is not only a scientifically trained expert but a man endowed with the magical attributes of a healer. The patient sees more of the old "medicine man" in the physician than is generally realized. The less educated the patient, the closer to the surface are such magical beliefs. Even in intelligent, well educated people such unconscious attitudes are present. In schizophrenic patients and obsessive-compulsive neurotics (who often have ritual-like compulsions) such magical thinking is clearly in evidence. Magical thinking is normally present in children and how much of it remains into adult life is often dependent on the environment.

In psychoanalytic psychotherapy which deals with the deeper aspects of personality, the doctor-patient relationship is always under scrutiny. The many overt and hidden attitudes of the patient towards the doctor are brought to light. From such psychoanalytic insight we have learned that the patient might see in the doctor something quite different from what the physician actually is. Psychologically speaking the sick individual comes to the physician because he represents to him a powerful helping and forgiving "father figure". Some patients, however, who carry great guilt feelings may make the physician, (who in this instance represents a punishing authority) an instrument of their self-punishing trends. Here belong those puzzling and exasperating problems of abdominal pathology where surgeons operate time after time, and nothing is found to account for the symptoms. Milder instances of such punishment-seeking trends are present when patients spontaneously inquire whether they had better stop smoking,

* Amytal is a brand of Amyl ethyl barbituric acid tradenamed by Eli Lilly and Company.

drinking, or adhere to some unpleasant diet. Often the physician then will add the additional taboo to the patient's instructions. He does this not on scientific grounds but with the rationalization that it is somehow better for the patient not to smoke. The patient can maneuver the physician into a position where he will yield to the patient's immature needs.

It is up to the physician to reassure the patient, lessen anxiety, and reduce guilt feelings. All this can be done in addition to prescribing some medication. Under such circumstances, the patient may never realize that he is receiving a form of psychotherapy.

47 Burgess Place

NURSERY PROCEDURE AT THE ENGLEWOOD HOSPITAL†

George Heller, M.D.,* Englewood, N. J.

For the past four years, immediately subsequent to the designation of the present Chief of the Obstetrical Service, the nursery at the Englewood Hospital has been under pediatric supervision. We have been fortunate in receiving full cooperation from the obstetric and nursing staff. The few changes we have introduced have been beneficial to the infants and have resulted in worthwhile economies in nursing time and materials.

Skin care has been reduced to a minimum. Our babies are not bathed until ready for discharge. When cleansing of the buttocks is necessary, a weak solution of a water softener is used. Results have been more than satisfactory. We have saved over 5000 hours of nursing time, the skin of the babies has been in better condition than before, and we have had only three isolated cases of impetigo during this entire period. Miliaria has not been infrequent, but this is transient and has had little to do with the type of care employed. Our staff, as a whole, is opposed to the use of antiseptic oils and lotions, regardless of content.

Another important change has been in the prophylactic drops employed in the eyes of the newly born. The New Jersey Sanitary Code obligates the physician only to use a method to prevent ophthalmia neonatorum. It does not specify the use of silver nitrate. We routinely use penicillin solution (5,000 units to the cubic centimeter). Evaluation of the efficacy of this procedure for preventing gonorrheal infection is impossible because this disease had not been discovered in any newborn baby at our hospital for many years. However, the number of irritated, discharging eyes has been gratifyingly reduced.

Care of the umbilical cord is limited to simple tying. We use no band or cord dressing. This has resulted in more prompt drying of the stump, earlier separation of the cord, and a real saving in nursing time and laundry. No bad effect could be attributed to this procedure.

In our nursery each baby has his own bedside stand. Crowding is rare and cross infections are practically non-existent. Our nursing staff has done a splendid job with the babies, and it may be of interest to appraise our success by a brief consideration of our results with that most difficult problem of the newly born, the premature infant.

We are proud to present a statistical analysis of premature deliveries compared with results reported by metropolitan centers which, from the standpoints of wealth of equipment, adequacy of nursing care and the presence of trained resident physicians have been far superior to our own. Our results have been, in every way, satisfactory. Conscientious, gentle care by the nurse far outweighs the procedures ordered by the physician in saving the lives of these very small babies.

We have no rigid procedure to be followed blindly in all cases. Our incubator battery consists of Armstrong and Davidson equipment, not separated from the nursery in general. Feeding is usually begun on the third

† Read at Alumni Day Program, Englewood Hospital, June 21, 1951.

* Chief, Pediatric Service, Englewood Hospital.

TABLE I. PREMATURE MORTALITY RATES IN VARIOUS HOSPITALS

Hospital	Years	Cases	Mortality rate, per cent: Less than 1000 Grams	1001 to 1500 Grams	1501 to 2000 Grams	2001 to 2500 Grams	Overall Rate
Sarah Morris, Chicago	1940-45	1993	91.3	50.0	14.4	7.2	25.8
Boston Lying-In	1943-45	481	100.0	46.7	12.8	4.4	15.0
Charity, New Orleans	1944-45	1122	95.7	55.4	30.5	7.9	27.4
New York Hospital	1943-45	506	85.0	49.3	21.4	5.6	22.3
Long Island College	1940-45	635	90.0	41.4	18.3	4.6	16.1
Cook County	1941-46	2910	72.1	35.2	13.2	4.9	17.9
Margaret Hague Maternity	1949	622	93.8	53.7	17.0	4.4	16.2
Englewood Hospital	1941-50	614	94.5	56.4	14.6	3.8	17.2

TABLE II. BIRTH WEIGHTS IN 614 PREMATURE INFANTS 1941 TO 1950, RELATED TO MORTALITY RATES

Birth weight	Cases	Died	Mortality per cent
1000 Grams	36	34	94.5
1001 - 1500	55	31	56.4
1501 - 2000	178	26	14.6
2001 - 2500	345	13	3.8
Totals	614	104	17.2

day of life. On the first day, no food or fluid intake is allowed. On the second day, small amounts of water are offered. During the past half year we have used nasal intubation for the feeding of those very small infants who are incapable of adequate sucking movements. We claim no originality on this score, the idea having been given us by attending physicians at the Presbyterian Medical Center in New York City. Though the number of babies on whom this method has been tried is small, our attitude, at the moment, is one of uncompromising approval. We have had no adverse reaction of any sort. The babies are not tired by the procedure; cyanosis and regurgitation are minimized and less skilled help, with proper instruction, can profitably be employed. Oxygen is used freely. The other minutiae of care differ little from the routines in other centers.

Dr. John Worcester, of our ophthalmology staff studies these babies' fundi during each week of residence. We have found no case of retrolental fibroplasia.

We have not relied entirely on fat-poor feedings. My own routine is the use of rather concentrated feedings employing Formulac,[1] an evaporated milk with vitamin and mineral additives, with added carbohydrate, occasionally adding calcium caseinate (Casec).[2] Though we realize that fat is not well absorbed by many of these immature babies, I do not feel that it does harm, and in the case of the occasional baby who absorbs it well, it helps in accelerating the weight gain.

Recent comprehensive surveys of the problem of the premature infant have stressed the role of the obstetrician in furthering its chance for survival. Several points are agreed upon by most pediatricians and obstetricians, but considerable missionary work seems to be required before these ideas are generally employed:

1. Avoid inhalation anesthesia entirely. Infiltration or block analgesia may profitably be employed.
2. Avoid morphine entirely. Demerol,[3] in dosage of *not more than 50 milligrams* is relatively safe.
3. Avoid barbiturates entirely.
4. Employ low forceps prophylactically, along with wide episiotomy; but *be gentle!*
5. Do not sever the cord before pulsation has ceased. *Gentle* stripping may be of value.

Brief mention should be made of hemolytic disease of the newborn. Because each individual sees rather few of these cases, replacement transfusion has been delegated to two physicians who, because the work is concentrated in their hands, may become more proficient in this highly specialized procedure. Dr. Roy Pollack and Dr. Dorothea Vann of our staff are entrusted, not only with the technical procedure, but with the decision as to its need in every case in which it may be contemplated.

1. Formulac is a proprietary milk-vitamin-mineral combination tradenamed by the National Dairy Products Company.
2. Casec is a calcium caseinate preparation manufactured by Mead, Johnson and Company.
3. Demerol is a brand of Meperidine tradenamed by Winthrop-Stearns, Inc.

460 Engle Street

CONSECUTIVE MYOCARDIAL INFARCTIONS

REPORT OF THREE ATTACKS IN A YOUNG MAN WITH COMPLETE RECOVERY

Bert B. Kun, M.D., and Thomas J. White, M.D., Jersey City, N. J.

Multiple coronary occlusion is uncommon in young adults but it is not as rare as was believed several years ago. However, there are no previous reports in the literature of three subsequent attacks of myocardial infarction with clinical recovery in patients under thirty years of age. There is here presented the first such case.

Until five years ago coronary occlusion in a person under thirty years of age was considered a rarity, and only fifty cases are reported in the American literature up to 1946. This includes thirteen references concerning fourteen patients under twenty years of age. The youngest patient (reported by Jokl and Greenstein[1]) in 1944 was ten years old. In the same year, Meesen[2] cited the cases of 78 German soldiers (under age 30) who had fatal coronary occlusions during World War II.

A comprehensive study of coronary artery disease in young men was published by Yater and co-workers[3] in 1948. An almost complete index of literature until 1946 is included in this report. Yater's report covers 866 men between 18 and 39 years of age who had coronary occlusion. A fourth of these cases were in men between the ages of 18 and 29, who had coronary occlusion during their American Army service in World War II. Of these cases, 130 were fatal. The paper included necropsy reports of 450 soldiers of all age groups, who died of coronary occlusion. Fourteen hearts showed two infarcts and only two hearts had three infarctions. It was not stated whether those multiple infarctions occurred in the 20-29 age group.

Evans and Graybiel[4] published one case (in 1948) of a 19-year-old woman with advanced coronary heart disease. She died following complete occlusion of the right coronary artery.

Stryker[5] emphasized the importance of coronary artery disease in infants and children. Nine cases under the age of 17 showed occlusion of one or more coronary arteries. However, atheromatous arteriosclerosis was relatively rare in these cases. The causes found were medial calcification, syphilitic arteritis, or hypertension.

Severe infantile arteriosclerosis of all coronary arteries in three infants was reported by Menten and Fetterman[6] in 1948. Two infants died when eight weeks old, one died at ten weeks. Congenital weakness of the elastic tissue in the arterial walls was offered as a possible explanation for the thickened sclerotic and calcified coronary arteries.

Shivelhood[7] reported a 12-year-old boy with severe diabetes and glomerulonephritis. Serial electrocardiograms showed evidence of myocardial infarction. The child died.

The literature is very meager, however, as to multiple fresh myocardial infarctions in the young age group.

MacDonald[8] cited one case of multiple coronary occlusion in 1941. His patient, a man of twenty-one, had first an acute occlusion of the left coronary artery. Ten months later a complete occlusion of the right coronary artery proved fatal. In addition to these findings the necropsy showed extensive arteriosclerotic changes with stenosis of both coronary arteries.

Since the advent of anticoagulant therapy, it is believed there will be more publications of survival even after three consecutive attacks of infarction.

CASE REPORT

A 29 year old, white, businessman, married, weighing 208 pounds, was first seen on July 1, 1948. In February 1948 he had had ligation for varicose veins of the left leg. He had been advised

1. Jokl, E., and Greenstein, M. B.: Lancet, 2:659 (1944).
2. Meesen, H.: Zeitschrifft fur Kreislaufforsch, 36:185 (1944).
3. Yater, W. M., Traum, A. H., Brown, W. G., Fitzgerald, R. P., Geisler, M. A., Wilcox, B. B.: American Heart Journal, 36:334, 481 and 683 (1948).
4. Evans, W. F., and Graybiel, A.: American Heart Journal, 35:485 (1948).
5. Stryker, W. A.: American Journal of Diseases of Children, 71:280 (March 1946).
6. Menten, M. L., and Fetterman, G. H.: American Journal of Clinical Pathology, 18:805 (1948).
7. Shivelhood, E. K.: American Heart Journal, 35:655 (1948).
8. MacDonald, D.: Journal of the American Medical Association, 116:2846 (1941).

to lose weight and was given dextro-amphetamine tablets which he took for the next two months. In May 1948 he suddenly awoke at night with an attack of palpitation lasting several hours. The following day he was examined by his physician. The electrocardiogram then showed no pathology. For the next three months he experienced frequent attacks of palpitation followed by a feeling of tension in his head which was considered to be of "nervous origin". The palpitation lasted for from five minutes to an hour recurring several times daily. Attacks would also occur at night or while he was resting. Between these attacks there were several days when the patient felt well and had no sensation of a fast heart beat. He was very apprehensive and heart conscious.

Family History: Parents are living and have no history of heart disease. One brother died four years ago of nephritis.

Physical Examination: The heart was not enlarged. Heart and pulse rate 88, regular. No murmurs were heard. In a recumbent position his blood pressure on the right side was 140/110; left was 115/85. In a sitting position the right side was 90/80; left side 120/80. All blood pressure readings were taken after sufficient periods of rest. Pulsations in the femoral arteries were present.

X-ray of the chest taken at a distance of six feet showed the transverse diameter of his heart to be 142 millimeters. This is within normal limits according to the Ungerleider-Clark[9] determinations. Electrocardiogram was within normal limits. (See Table I A)

Laboratory Findings: Complete blood count and differential were normal; sedimentation rate was 8 millimeters after one hour by the Westergren method. Blood sugar 114 milligrams per cent. Non-protein nitrogen was 42.2 milligrams per cent. Basal metabolism was plus 8.

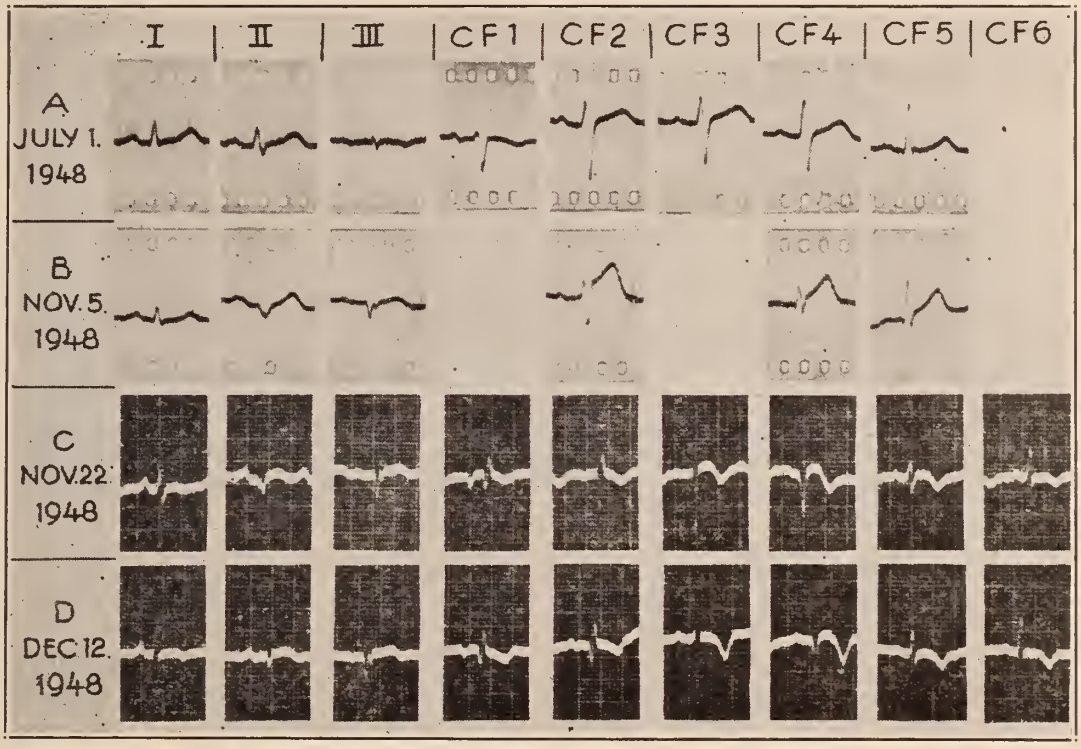


TABLE I

A: Within normal limits.

B: The R_1 Q_2 Q_3 pattern is diagnostic for infarction of the diaphragmatic and posterior portion of the left ventricle supplied by the right posterior descending coronary artery. Elevation of S-T segment in precordial leads might indicate antero-lateral involvement.

C: Inverted T in Lead I and in all precordial leads. T_2 now also inverted; Q_2 and Q_3 prominent.

D: Basically the same as C.

On July 20 his blood pressure readings were as follows: Right side 145/100 to 155/105; left side 130/95. Heart rate 88, regular. Intravenous pyelogram was normal, but this time, non-protein nitrogen was 28 milligrams per cent. The urine showed no albumin or sugar; pH was 6, and specific gravity was 1.032. Microscopic examination of the urine was normal.

Clinical diagnosis at that time was a possible early essential hypertension with an associated paroxysmal tachycardia.

On November 5, 1948, the patient was seen in an acute shock-like state, looking gray, pale and ill. For the past twenty minutes, he had had a severe and sudden pain in his left chest. The pain had

9. Ungerleider, H. E., and Clark, C. P.: American Heart Journal, 24:494 (1942).

started in the upper abdomen radiating to his precordium and to the left arm. He was still in acute distress. Two tablets of nitroglycerine plus one injection of morphine relieved him somewhat. The electrocardiogram showed an acute posterior infarction. (See Table I-B)

He was immediately placed on Dicumarol* therapy (300 milligrams, the first dose) and was given oxygen and papaverine. Morphine was administered as needed. Blood pressure was 160/120, the heart rate 140 with gallop rhythm and frequent premature beats. Because of the fast and irregular heart beat and the danger of ventricular tachycardia, quinidine was given. Three days later the heart rate started to return to normal and the quinidine was discontinued. Three days later, an electrocardiogram failed to reveal any additional changes; sedimentation rate was 25 millimeters, leukocyte count 14,700, blood pressure 120/80. The patient had 102 temperature for which penicillin was administered.

After two weeks' bed rest he presented the following clinical picture: temperature normal, heart and pulse rate between 72 and regular, blood pressure 120/80, prothrombin activity 30 per cent of normal, sedimentation rate 16 millimeters, white count 8900. He felt comfortable. He was kept on an 800 to 1000 calorie diet.

Sixteen days after the first attack, despite complete bed rest and anticoagulant therapy, at 10:30 p. m. the patient suddenly experienced severe precordial pain and the feeling of dying. He was extremely pale and clammy; lips and fingers were cyanotic, his heart and pulse rate 120, with occasional irregular beats; blood pressure was 125/80. This attack lasted about twenty minutes. Morphine was given and oxygen started. The electrocardiogram revealed an acute anterior infarction. (See Table I C)

Dicumarol* had been administered continuously from the very first day of hospitalization. Prothrombin activity was kept between 20 and 30 per cent of normal. On that day (November 21) prothrombin activity was 29.5 per cent of normal.

Laboratory findings on November 22 were: sedimentation rate 16 millimeters after one hour, leukocyte count 8100, with a differential showing 68 per cent polymorphonuclear leukocytes. In spite of definite clinical and electrocardiographic evidence of a fresh coronary occlusion, there was no temperature elevation and no leukocytosis.

The following weeks were uneventful. The patient was feeling well; blood pressure was 120/80 and pulse rate 72, regular. All his activities were restricted. Dicumarol* was given continuously averaging 50 milligrams daily. The prothrombin activity was maintained between 24 and 32 per cent of normal.

On December 11, 1948, at 5:15 p. m., twenty days after the second attack and still on complete bedrest and adequate anticoagulant therapy, the patient experienced a third attack. He had a sudden severe pain and tightness in his whole precordium. He complained of stiffness in the neck and was sweating profusely. His color was pale (ash gray), fingers cyanotic, heart and pulse rate 128, blood pressure 145/95. The pain was worse on the right side of his chest. He was placed under continuous oxygen again and was given morphine and nitroglycerine. Eight hours later, pulse was 100 and irregular. He complained of "skipping" sensations and a feeling of palpitation. The electrocardiogram taken next day did not show any additional myocardial pathology. (See Table I D)

To rule out possible pulmonary embolism a chest x-ray was taken which was entirely normal. The patient did not cough and did not raise sputum. On auscultation there were no signs of rales or any other evidence of pulmonary congestion.

In spite of the lack of additional electrocardiographic changes of a fresh new coronary occlusion this was considered to be his third attack. Clinically, it was a typical attack of myocardial infarction.

The sedimentation rate on December 13, rose to 13 millimeters. It had been 9 on November 29. Leukocyte count did not show any increase. There was, however, an unusual temperature elevation and a significant change in the heart rate with frequent irregularities. The prothrombin activity on December 11, was 26.5 per cent of normal.

From this time on until discharge from the hospital (on February 14, 1949) his convalescence was uneventful. Dicumarol* was given continuously.

Since his discharge from the hospital, he has taken daily Dicumarol* medication as an ambulatory patient. Prothrombin time determinations are done weekly. Between 50 and 75 milligrams of Dicumarol* daily are required to keep the prothrombin activity between 30 and 40 per cent of normal. The patient returned to his original work on September 1, 1949. He has never had any complications from Dicumarol,* not even microscopic hematuria. His physical condition is good. The patient is able to work without interruption. His only medication is Dicumarol.*

The patient was re-examined on April 3, 1951, two and a half years after his first attack of coronary occlusion. X-ray of his chest shows a transverse diameter of 140 millimeters: no increase since 1948. The blood pressure was 140/95 bilaterally. The heart rate was 76 and regular. The electrocardiogram (See Table II), shows marked improvement. It is significant to observe the healing ability of the myocardium after three attacks of infarction.

Our patient weighed 208 pounds, his height was 68½ inches. He was obese with flabby fat deposits everywhere.

In reporting 80 cases of fatal coronary arteriosclerosis in young soldiers, French and Dock[10] thought that excessive weight was an important etiologic factor. However, Yater and co-workers,[3] after comparing the weights of fatal coronary cases with fatal accident cases within the same age group, concluded that there was no significant difference.

* Dicumarol is a collective registered trademark of the Wisconsin Alumni Research Foundation for their brand of synthetic methyelene bis hydroxy coumarin.

10. French, A. J., Dock, W.: Journal of the American Medical Association, 124:1233 (1944).

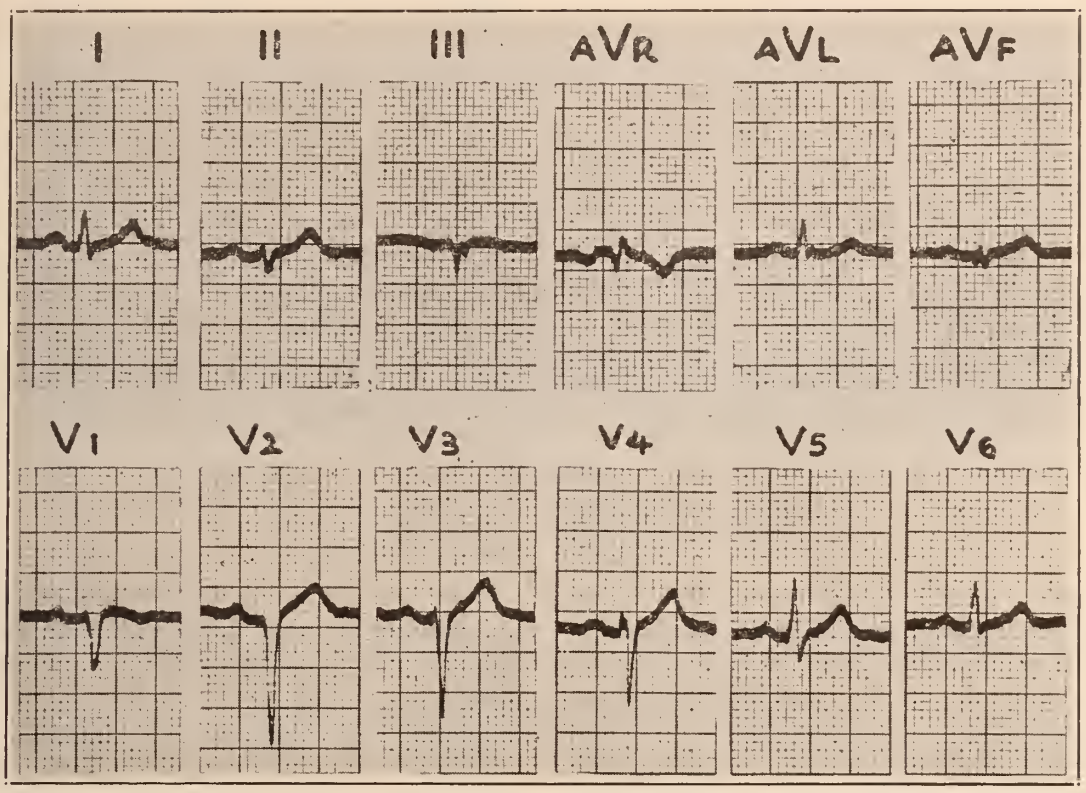


TABLE II

Electrocardiogram taken on April 3, 1951, two and a half years after first attack of coronary occlusion. Only residual signs are low R waves in V_3 and V_4 and slight Q waves in AVF.

The only complaints our patient had were acute attacks of palpitation for the six months preceding his first attack. He also awoke from sleep with acute attacks of palpitation. No precordial pain or other painful sensation, no dyspnea, and no "indigestion" could be elicited on repeated questioning. In Yater's large series[3] only three patients had palpitations before the sudden attack of coronary occlusion.

Prothrombin time was examined daily during his hospital stay. Average prothrombin activity between November 5 and November 21, was kept between 20 and 30 per cent of normal. On the day of his second attack, November 21, 1948, the prothrombin activity was 29.5 per cent of normal.

After the second coronary episode, the daily amount of Dicumarol* was increased to approximately 75 milligrams. Average prothrombin activity between November 22 and December 11, was 22 per cent of normal. On December 11, the day of his third attack, the prothrombin activity was 26.5 per cent of normal. (See Table III) In spite of the therapeutic prothrombin levels, this patient developed two fresh attacks of myocardial infarction.

Sixteen days elapsed between the first and second coronary attack and twenty days between the second and third episode. The first attack shows posterior damage (See Table I B), and the second attack involved the anterior myocardium. (See Table I C)

There is no electrocardiographic proof that the third attack on December 11 was a fresh myocardial infarction. However, the possibility of acute pulmonary embolism was ruled out, and the clinical picture was unquestionably a coronary episode. Sudden chest pain with cyanosis, complete collapse, and the feeling of imminent death are definitely indicative of an acute attack of myocardial infarction.

In addition to these symptoms, other clinical signs confirmed the diagnosis of a fresh in-

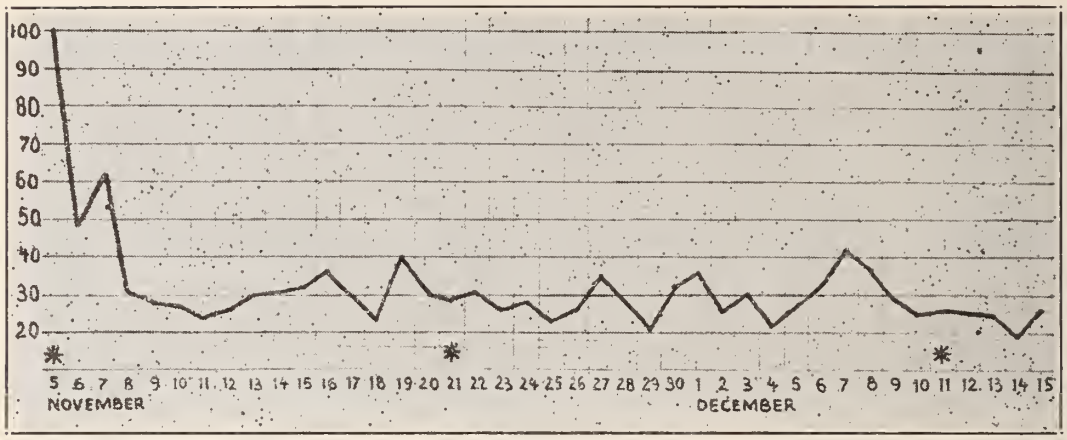


TABLE III

Prothrombin activity in per cent of normal (Quick Method, Magath Modification).
*Signifies acute attacks of myocardial infarction.

farction. The temperature curve was significant. During the first attack the temperature rose to 101.8. From that time on until December 11, the day of his third attack, the temperature never rose above 99. Even on the day of his second attack (November 21), the highest temperature was 99. However, on December 11, temperature suddenly rose to 99.7.

The heart rate also showed sudden changes. Before December 11, the rate was always 72, regular. During the attack it became fast (128) and eight hours later was still 100 and irregular. The blood pressure also rose from the usual 125/80 to 145/95.

The sedimentation rate increased from the previous 9 to 13 millimeters on the day after the third attack. Although the increase is slight, it is one additional sign in suggesting new damage.

Was propagation of the thrombus in the previously occluded coronary arteries responsible for the third episode? If so, it would have occurred, in all probability, much sooner after the second attack. A third myocardial infarction in the neighborhood of the previous infarctions could cause confluence of myocardial pathology without necessarily showing additional electrocardiographic changes.

Master[11] and his co-workers[12] discussed myocardial necrosis or infarction without acute coronary occlusion. They found that coronary insufficiency may occur in the presence of a normal electrocardiogram.

Evidently, this patient had severe atheromatous disease in several branches of the coronary arteries. Because of the positive clinical and laboratory findings, the attack on December 11, 1948, must be considered a third fresh myocardial infarction.

The blood cholesterol during his hospitalization and during the two and a half years following his discharge remained at about 300 milligrams per cent. It is evident that continuous Dicumarol* medication did not influence the cholesterol content of his blood. Lipotrophic medication did not reduce the blood cholesterol.

There was a striking change in the patient's general condition from one day to another. He was extremely ill one day and comparatively well the next day. The day after the third attack the temperature returned to 98.6. Pulse and heart rate became normal and regular. The blood pressure returned to the usual 125/80 and the patient felt well. A similar observation was made after the second coronary episode. It is felt that the anticoagulant therapy was largely responsible for the quick recovery by continuously maintaining sufficient coronary circulation, even in the very narrowed coronary collaterals.

11. Master, A. M., Dack, S., Grishman, A., Field, L. E., Horn, H.: Journal of the Mt. Sinai (N.Y.) Hospital, 14:1 (1947).
12. Master, A. M., Dack, S., Field, L. E., Horn, H.: Journal of the American Medical Association, 141:887 (1949).

Continuous ambulatory Dicumarol* medication given for an indefinite time following severe multiple infarctions is a debatable and, at present, an unpopular therapeutic method. Wright,[13] and Nicol and Borg,[14] encourage more clinical investigation in this respect.

Our own investigation,[15] in which Dicumarol* has been given to ambulatory patients for over two years, confirms the beneficial effect of anticoagulant therapy. The mortality is greatly diminished and the thrombo-embolic complications are minimal.

One cannot say whether our patient would have recovered just as completely without Dicumarol* medication as he did with it. He has not had any symptoms or complications after two and a half years of continuous Dicumarol* therapy. It is felt that Dicumarol* was instrumental in saving this patient's life.

CONCLUSIONS

1. A 29-year-old man had three consecutive attacks of myocardial infarction within seven weeks. Two of the attacks were preceded by coronary occlusion.

2. Dicumarol* was administered continuously from the very first day of hospitalization and has been continued as ambulatory treatment for the past two and half years.

3. The patient recovered completely and has been working full time at his previous occupation.

135 Belmont Avenue

DETECTION OF EXFOLIATED CANCER CELLS

The application of a principle of television to medicine is described in *Science,* (114:356, issue of October 5, 1951) by R. C. Mellors and R. Silver. A scanning disk with spirally arranged holes (each approximately the diameter of a cell) is placed between a source of light and a slide on which cells are stained with a basic fluorescent dye. Above the slide is a photo-electric cell in connection with an oscilloscope. Cancer cells combine with more fluorescent dye than do normal cells, and they emit two or three times the fluorescent light of normal cells. This is reflected in a higher voltage transmitted by the photo-electric cell to the oscilloscope. By appropriate electronic discrimination, the low voltages can be screened out, leaving only the higher voltages (from cancer cells) to be recorded. With the disk revolving, and the microscope slide moving synchronously, a large number of fields can be scanned rapidly for the presence of cancer cells in slides prepared for exfoliative cytology. The authors point out the potentiality of this device in clinical hematology for the differential counting of peripheral blood smears and bone marrow preparations.

MECHANISM OF AURICULAR FLUTTER

Until recently the circus movement theory of Sir Thomas Lewis, first proposed in 1918, has prevailed to explain the mechanism of auricular flutter. Recently Prinzmetal and his colleagues have challenged this theory. In the October 1951 issue of the American Journal of Medicine, convincing evidence is presented that auricular flutter is the result of impulses arising from an ectopic focus in one of the auricles. Color cinematographs and electrocardiograms from animal experiments and human subjects support this new concept, and seem to disprove Lewis' theory. Additional evidence is presented that paroxysmal auricular tachycardia and auricular flutter arise from a common cause: an ectopic auricular focus. Thus, the differences between them are chiefly variations in the rate of discharge of impulses, and the site of the abnormal focus. It is further suggested that in the course of time the term auricular flutter will be dropped from the cardiologists' nomenclature, since it is essentially a rapid tachycardia with auriculo-ventricular block.

13. Wright, I. S., Foley, W. T.: Journal of the Missouri State Medical Association, 46:643 (Sept. 1949).
14. Nicol, S. E., Borg, J. F.: Circulation, 1:1097 (1950).
15. Kun, B. B., Emmert, J. A., White, T. J.: Continuous Dicumarol* in ambulatory patients following coronary occlusion (to be published).

"FUNCTIONAL CONSTIPATION": A CASE HISTORY

GEORGE J. KEMPE, M.D., Union, N. J.

Psychosomatic medicine within the last few years has devoted much attention to "functional" complaints without apparent organic basis. Many physicians find it hard to explain to the patients that their symptoms are not due to structural disease and that the only way to relieve them is to understand the emotional background out of which the complaints have developed. By using medication alone, it is difficult to clear up these complaints since there are very few preparations which can be given effectively. Many physicians use barbiturates to reduce central nervous-system stimulation. It has been my feeling that more complete sedation is necessary since parasympathetic and sympathetic over-activity is involved in many "functional illnesses". Therapy for such patients is based on a two-pronged approach: pharmacologic and psychologic.

The following case history is an example of the problems found and the ways in which they were handled.

A 57 year old male was seen for the first time in 1947. His complaint was "chronic constipation". The family history, though carefully reviewed, appeared to be irrelevant. He had been in good health until 1947 when he had an attack of renal colic and passed the stone. His statement that prior to 1947 his health was good was subject to one exception—the history of constipation.

For 25 years—that is, since the age of 32, he has been addicted to laxatives. He lived in Central Europe for many years and would go to a spa for four weeks every year. He soon became accustomed to laxatives and was unable to have a normal bowel movement without them. Appetite has been good. He has had no loss of weight. In 1945 he had pain in his "stomach" every once in a while. Gastric analysis at that time revealed absence of hydrochloric acid. Stool examination disclosed occult blood. Gastro-intestinal x-ray suggested a "possible diverticulum of the duodenum". He was not placed on any diet but was advised to refrain from the use of laxatives. Because he suffered from severe, painful constipation he was obliged to use laxatives again. In 1946 and 1947, he lost nearly 20 pounds. He looked pale, was nauseous, vomited and was still badly constipated. Again, he used laxatives and enemas freely but continued to have some pain in his "stomach" directly under the sternum. Another series of x-rays now suggested an early carcinoma of the stomach in the region of the fundus. Receiving this report, he had a third gastro-intestinal series. This time the gall bladder was found to be enlarged and the stomach showed severe "gastritis". Gastroscopy revealed that the walls of the stomach mucosa were covered with purulent mucus. Diagnosis was "severe gastritis associated with a psychogenic gastro-intestinal syndrome". No occult blood was found in the stool. Gastric juice was within normal acid values. The gastro-enterologist advised him not to take any more laxatives, to stop smoking and to follow a diet. The patient again lost 10 pounds and was very discouraged. Since that time the patient has been in my care and the following treatment has led to marked improvement.

Treatment began in 1947 when the patient was instructed to take a belladonna-phenobarbital-ergotamine* preparation four times a day. In 1949, this was reduced to three tablets daily and in 1950 to two. During this entire period (four years) he has not taken a single laxative, yet he has had normal bowel movements. Stool examinations have consistently failed to reveal occult blood. He looks and feels well and makes no complaints. Considering that for a quarter of a century this patient had been a slave to laxatives, this change is spectacular. It is not ascribed, however, to the antispasmodic alone.

During the entire period he has been encouraged to ventilate his emotional problems freely. The procedure was not, of course, a formal psychoanalysis. It represented a form of simple psychotherapy well within the scope of the general practitioner. He was given help and guidance in understanding his emotional problems and in adjusting to the stresses and strains of life. The basic psychodynamic factors which underlay the constipation were not fully brought out, since this would have required a deep kind of psychotherapy for which the patient was not ready and which, indeed, would have probably been unnecessary. However efforts were made to explain to the patient in simple and non-frightening terms how his emotional conflicts could be translated into gastro-intestinal spasm.

This is a typical case of a patient whose structural lesions, if any, were accompanied by, and possibly caused by, emotional factors. It is possible that the diverticulum had been bleeding and that this caused the constipation. However this seems a far-fetched explanation. It is much more likely that the emotional factors led to a functional disturbance manifested by impaired peristalsis. The drug,* which contained a vagal inhibitor and a sympathetic sedative so balanced the autonomic nervous

*The preparation used was "Bellergal", a product of Sandoz Pharmaceuticals.

system that the "functional" complaints were relieved. This psychologically helped the patient to "feel better" and enabled the physician to discuss the emotional difficulties with the patient without undue emotional stress. The patient was made to realize that he had emotional conflicts which could cause "physical" pain. If the general practitioner gets to know the patient well, he can help him solve many of the inner conflicts. This combination of simple psychotherapy and appropriate symptomatic medication will be helpful to the interested family doctor who has the willingness and time to try it.

963 Caldwell Avenue

DEATH FROM ANESTHESIA

THE MATERNAL WELFARE COMMITTEE

This is the case of a twenty-five year old gravida 2, para 1, in good physical condition. She had no history of any serious illnesses. Her first pregnancy (at age 22) resulted in a spontaneous delivery of a seven pound, living infant in good condition.

In the present pregnancy, the prenatal period had been uneventful. At term the patient was admitted to the hospital in active labor. The labor was said to have started one hour before admisson. She had eaten a large meal one hour before labor began. Thirty minutes after admission the membranes ruptured and the patient was taken to the delivery room at once. Caput became visible a few minutes later and gas-oxygen-ether anesthesia was started. The patient had received no premedication.

Fifteen minutes after the anesthesia was started, the patient was delivered by low forceps of a living baby in good condition. During the anesthesia, the patient began to vomit. The anesthesia mask was removed and a large mass of thick, brown fluid and undigested food particles were found. The naso-pharynx was cleared by suction and the patient was allowed to wake up. She was soon able to cough and expectorate. She left the delivery room one hour later, well oriented, but still coughing and with slight cyanosis. Pulse was 130. For the next two hours, she continued to cough and had occasional vomiting. Four hours after delivery the patient was complaining of chest pain. Respirations were rapid and labored. Her color was cyanotic. Examination revealed moist rales over the entire chest, anterior and posterior. Her pulse was rapid and of poor quality. She was placed in an oxygen tent and was given atropine sulphate, grain 1/150 by hypodermic and 300,000 units of penicillin intramuscularly. Five hours after delivery, the patient was bronchoscoped. Large amounts of gray, stringy material were removed from the right and left bronchial tree. Following this procedure, the condition of the patient seemed to improve. One hour later, she was again bronchoscoped. Her condition for the next twelve hours seemed about the same. She continued to receive oxygen and was given a transfusion of 500 cubic centimeters of whole blood. The following day she seemed to be growing weaker. Despite another bronchoscopy and transfusion, her condition became progressively worse. She died thirty-six hours after delivery.

Autopsy disclosed acute diffuse mucopurulent tracho-bronchitis, due to aspiration of vomitus, and disseminated broncho-pneumonia involving all lobes of both lungs.

Question: Was this a preventable death?

Answer: Yes. We presume that if this patient had not been under the effects of a general anesthesia, she would not have aspirated the vomitus. Since general anesthesia was contra-indicated for a patient with a full stomach, this death was preventable.

Question: What further treatment could the patient have received after the aspiration took place?

Answer: The patient was under the care of a competent staff including an obstetrician, a bronchoscopist and an internist. Their treatment was apparently as thorough as is possible. The fault lies not in their handling of the case. The facts are: (1) This patient while under general anesthesia, sufficiently deep to abolish her cough reflex, vomited a large amount of food. (2) She aspirated enough vomitus to cause broncho-pneumonia and death. (3) If her cough reflex had not been abolished, she would not have aspirated the vomitus. Therefore the fault lies in giving her the general anesthesia.

Question: But we all see many obstetrical patients receive general anesthesia with enough food in their stomachs to cause vomiting.

Answer: Each year in New Jersey, we lose from one to three obstetrical patients due to

anesthesia. Each time it happens everyone in that hospital is horrified at the tragedy of a preventable death. For the next few years they carefully guard against the circumstances that lead up to such a tragic occurrence. Then everyone begins to assume that vomiting under a general anesthesia, while dangerous, is not necessarily fatal. The stage setting is again complete for the anesthesia death which we have grown to expect each year in New Jersey.

Question: How can we prevent this type of death?

Answer: Do not give deep general anesthesia to patients who have had anything to eat or drink within the last few hours before delivery. If a patient has a full stomach, her stomach must be emptied before giving anesthesia. If you suspect the stomach is not emptied, her anesthesia should not go beyond the stage of analgesia. The cough reflex must not be depressed. It would be much better to give the patient a local or spinal anesthesia under such circumstances. The belief that a woman must be "asleep" while having her baby is a misconception that should be rooted out of the public's mind, and the sooner the better. If you can show your patient that her life is at stake, she will cooperate. Statistics reveal that we can expect an anesthesia death in New Jersey this year. Will it be your patient?

JOHN D. PREECE, M.D., Chairman

FIFTY YEARS AGO

From an Essay by J. Bruyere, M.D., read at the 50th anniversary of the Mercer County Medical Society and published in the 1899 *Transactions of The Medical Society of New Jersey* (page 239).

"May we not, in the future, so understand the secrets of life as to secure to each individual a limited immortality? Then the patient may beseech the doctor to let him die instead of keeping him so long in this vale of tears. Some day we will quarantine the flies and mosquitoes instead of the people. The scientific spirit will eventually overcome the commercial spirit—the mercenary spirit of this age which foists upon us germ juices and specifics *ad nauseam*—and commercial houses will no longer lord it over the medical profession. They will supply the demand, not create it. . ."

18th CENTURY MEDICINE IN NEW JERSEY

A TABLE OF FEES

As agreed on by The Medical Society of New Jersey at New Brunswick, July 23, 1766.

Phlebotomy	1 s. 6 d.
Extracting a tooth	1 s, 6 d.
Cutting an issue	2 s, 0 d.
Cupping with scarification	2 s, 0 d.
Advice for large inflammation	10 s, 0 d.
Dressing a putrid ulcer	2 s, 0 d.
Operation of the trepan	3 pounds
Operation for the Wry Neck	1 pound
Amputation of one finger	15 s, 0 d.
Delivering a woman in a preternatural case	3 pounds

CLINICAL EXPERIENCE WITH DORMISON*

The hypnotic action of Dormison* in 19 hospitalized patients has recently been described by A. W. Allen and D. D. Krongold, writing in the April 1951 *Quarterly Bulletin of Sea View Hospital.* Since all 19 patients had previously required a hypnotic drug to induce sleep, comparison between the previously used hypnotic and Dormison* was readily afforded. These authors found that in doses ranging from 200 to 800 (average 500) milligrams, sleep could be induced with Dormison,* and that there were no toxic effects or "hangover" in patients in whom the new preparation was used for as long as sixty-five days.

CANCER SEMINAR IN FLORIDA

Announcement is made of a one-week seminar for physicians to be held in Miami during the week of January 14, 1952. The course includes instruction in cancer diagnosis and cytology in all branches of medicine. Interested physicians should write to the Dade County Cancer Institute, 1155 North West 14th Street, Miami, Florida.

* Dormison is the Schering Corporation trade-name for 3-methyl-pentyne-ol-3, an unsaturated aliphatic carbinol.

STATE ACTIVITIES

SUPPLEMENTARY LIST No. 7
TO THE OFFICIAL LIST OF MEMBERS AS OF MARCH 1, 1951
NOVEMBER 20, 1951

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

Arcomano, Nicholas J.,335 Second av.,L.Branch(13)
Ayers, John R., Jr., 140 River rd., Red Bank (13)
Beyer, William, 88 Edgewater pl., Edgewater (2)
Blackman, Sadie, 12 Roosevelt av., Westwood (2)
Bookstaver, Paul I., 241 Cedar lane, Teaneck (2)
Duffy, Joseph F., 387 Kinderkamack rd., Westw'd(2)
Gatto, Isaac N., 327 Cedar lane, Teaneck (2)
Gearren, John B., 100 Farnsworth av.,Bordent'n(11)
Grimes, Vera J., 819 Elm av., Teaneck (2)
Haggstrom, Gustave, 88 W.Ridgew'd av.,Ridgew'd(2)
Humphreys, Edward J., 326 Burd st.,Pennington(11)
Larkin, Michael J., 704 Hamilton av., Trenton (11)
McLane, Robert, Jr., 151 Reservoir av., River E.(2)
Pegau, Paul M., 31 Newton av., Woodbury (8)
Pingitore, Eufelia, 30 Martin ter., Hackensack (2)
Pollack, Philip J., 325 Kinderkamack rd.,River E.(2)
Putkowski, Edward, 16-27 Radburn rd., Radburn(2)
Reed, Franklin L.,Jr., Englewood Hosp.,Englew'd(2)
Rubin, David, 825 N. Broad st., Elizabeth (20)
Saigh, Raymond, 554 Queen Anne rd., Teaneck (2)
Snyder, George P., Jr., 502 Bogert rd., River E.(2)
Sooy, L. Thomas, 202 West Holly av., Pitman (8)
Vandersluis, Harold H., 40 Pascack rd., Pk. Ridge(2)
Wagman, Murray, 192 Amboy av., Metuchen (12)
Warner, Charlotte R., 498 Engle st., Englewood (2)

ASSOCIATE MEMBERS

Campbell, Roger B., 4273 S. Broad st., Trenton (11)
Kovacs, Alexander D., 2233 S. Broad st., Trenton(11)
Millner, Bernard, 916 W. State st., Trenton (11)
Schejbal, George J., 865 King Georges rd., Fords(12)
Sophocles, Aris M., 4469 S. Broad st., Trenton (11)
Vine, Sherwood, 48 Elmhurst av., Trenton (11)

OBITUARIES

DR. C. EUGENE DARBY

Dr. C. Eugene Darby of Ocean City died on October 21, 1951, of a heart attack, at the age of 54.

Dr. Darby had practiced medicine in Ocean City from 1925 until 1946, when he was forced to retire because of ill health. At the time of his death he was preparing to reopen his office on a fulltime basis.

Dr. Darby received his medical degree from Hahnemann Medical College in 1921. He served his internship on Blackwells Island, N. Y., and was an assistant resident physician in pediatrics the following year. Dr. Darby was a veteran of both World Wars.

DR. IRWIN MARKOWITZ

Dr. Irwin Markowitz, one of the leading urologists of the United States, died of a heart ailment on October 21, 1951.

Dr. Markowitz was born in New York City in 1894, and was graduated from New York University Medical School in 1915. He served his internship at the old Jersey City Hospital and practiced in Jersey City after serving in World War I. He was chief of Christ Hospital Urology Staff and was also connected with Jersey City Medical Center, Margaret Hague Maternity Hospital and the New York Postgraduate Hospital. He was a diplomate of the American Board of Urology, a fellow of the American College of Surgeons and a member of the American Urological Society, New York section. Dr. Markowitz was noted for his philanthropic work.

DR. HERBERT W. NAFEY

Dr. Herbert W. Nafey, Highland Park, died on October 26, 1951, of a heart ailment.

Born in New Brunswick in 1887, Dr. Nafey received his medical degree from the University of Pennsylvania in 1914. He served his internship at the Presbyterian Hospital in New York City. Following service in World War I, he began practicing medicine in New Brunswick.

Dr. Nafey served as president of the Society of Surgeons of New Jersey in 1946, and was a Trustee of the State Medical Society from 1932 until 1941.

DR. LOUIS SCHNEIDER

Dr. Louis Schneider, a past president of the Essex County Medical Society, died on November 6, 1951, after a brief illness. He was 67.

Dr. Schneider received his medical degree from the Medico-Chirurgical College of Philadelphia in 1908. Shortly thereafter he began his general practice in Newark. He was a leading proponent of better care for the chronically ill. He was a staff physician at Presbyterian Hospital and a consultant at Essex County Isolation Hospital.

NEW JERSEY STATE DEPARTMENT OF HEALTH

PUBLIC HEALTH NEWS FOR THE PHYSICIAN

FORM COUNCIL FOR LOCAL PUBLIC HEALTH SERVICES OF NEW JERSEY

Formation of a Council for Local Public Health Services of New Jersey was voted at a meeting of approximately 100 residents of New Jersey who met at the Nassau Tavern, Princeton, on November 14. The group is an unofficial, citizen organization.

Mrs. Lodovico Mancusi-Ungaro, of Newark, a former president of the Auxiliary to The Medical Society of New Jersey, was elected president. Dr. Joseph E. Mott, of Paterson, chairman of the Committee on Public Relations of The Medical Society of New Jersey, was elected vice-president. Mrs. Homer van Buren Joy, of Montclair, president of the Citizen Health Council of New Jersey, was elected secretary-treasurer.

In addition, Dr. Daniel Bergsma, State Commissioner of Health, Mr. John J. Hanson, health officer of New Brunswick and president of the New Jersey Health Officers' Association, and Mrs. Gloanna Wallace MacCarthy, of Maplewood, chairman of Governor Driscoll's Committee on Local Health Administration, were elected to serve with the officers as a governing body of the organization until a constitution and by-laws are adopted.

Governor Alfred E. Driscoll addressed the group at luncheon. He stressed the importance of citizen participation in government and complimented those present on their interest in health and public administration.

SOUTH JERSEY INSTITUTE ON EPILEPSY

Physicians are invited to a South Jersey Institute on Epilepsy for medical and public health personnel to be held Friday, January 11, 1952, at Kenney's Restaurant, 531 Market Street, Camden.

In the morning session (which begins at 9:30) Dr. Harrison English, chairman of the Mental Hygiene Committee of The Medical Society of New Jersey, will speak on the background of the epilepsy project. Epilepsy in New Jersey will be discussed by Dr. Edward J. Humphreys, Deputy Commissioner for Mental Hygiene and Hospitals of the New Jersey Department of Institutions and Agencies.

Case-finding and diagnosis in epilepsy will be reviewed by Dr. Roland D. Roecker, Neurologist of the New Jersey Diagnostic Center at Menlo Park. Treatment and control of epilepsy will be the topic of Dr. H. Houston Merritt, Professor of Neurology, College of Physicians and Surgeons, Columbia University.

Operation of an electro-encephalograph machine will be demonstrated.

The social, psychologic and public health aspects of epilepsy will be covered in the afternon session which begins at 2 o'clock. Speakers include Dr. Ralph Brancale, Director of the New Jersey Diagnostic Center at Menlo Park, and Dr. Arthur Lesser, Chief of the Program Planning Branch, Division of Health Services, Children's Bureau, Washington, D.C.

The Institute has the support of The Medical Society of New Jersey, the State Department of Health, the New Jersey Chapter of the National Society for Crippled Children and Adults, and other agencies.

NEW CARD TO REPORT TUBERCULOSIS GIVES MORE INFORMATION

A new card is now being used by physicians to report cases of tuberculosis to local boards of health. The new type of card has been made available to local health departments, physicians, and hospitals by the New Jersey State Department of Health. All cases of tuberculosis, active or not active, are reportable.

The principal change in the new form is the addition of a question about the site of the infection and a question about the clinical status of the case. This additional information will serve as a guide to the supervision of cases and contacts to prevent spread of infection. It will also help to measure the extent of the tuberculosis problem and to formulate new plans for its control. In 1950, tuberculosis was the fourth leading cause of death in the State.

Reports are requested in all cases of tuberculosis whether they are active or not active. If the case is reported as "not active" or "activity undetermined", a later change to active should also be reported.

COUNTY SOCIETY REPORTS

ATLANTIC COUNTY

Leonard Erber, M.D., Reporter

A regular meeting of the *Medical Society of Atlantic County* was held at the Traymore Hotel, on November 9, 1951, with Dr. Anthony G. Merendino presiding.

J. GERSON COHEN, M.D., D.Sc., assistant professor of Radiology, University of Pennsylvania Graduate School of Medicine, and HELEN INGLEBY, M.S., F.R.C.P., were the guest speakers. Their subject, "Breast Malignancy, a Discussion of the Frustrating Factors Involved in the Early Diagnosis and Successful Treatment of Breast Malignancy", was presented in an unusual manner, correlating the radiologic and pathologic aspects of this phase of breast cancer.

DR. SAMUEL C. SOUTHARD was elected to Regular membership.

Dr. Holland, reporting for the Public Relations Committee announced that the Emergency Medical Service plan for this Society had now reached a workable stage and would be in effect as of November 10. He reported progress in the establishment of the Bureau of Economics, a project also designed to establish improved relations between doctor and patient.

Dr. Weintrob, reporting for the Broadcasting Committee, announced a program of thirty radio presentations, utilizing the two stations in Atlantic City.

Dr. R. D. Harley, chairman of the Conservation of Vision Committee, reported that his committee had formulated a plan to speak to parent-teacher groups in an effort to promote better understanding of the problem. The Society endorsed the program of this Committee in the furtherance of increasing the visual care of school children of this county.

Under new business, Dr. Kline brought up the problem of ringworm of the scalp in school children. It was brought out that there was definitely an increased incidence of the condition and that it could reach epidemic proportions. It was therefore voted that the Society request the medical inspector of schools to investigate the problem of ringworm of the scalp in school children and the feasibility of purchasing Woods lamps for the diagnostic detection in schools.

Dr. Erber read to the Society resolutions commemorating the passing of a beloved and respected colleague, DR. ISAAC SHENFELD. It was moved and seconded that the resolutions be adopted, that they be inscribed upon the minutes of our Society and that a copy be forwarded to the bereaved family.

CAMDEN COUNTY

James P. Harbeson, M.D., Reporter

Under the chairmanship of DR. WALTER A. CHRIST, President, the *Camden County Medical Society* held its regular monthly meeting on November 6, 1951, in the Camden City Dispensary Building. Seventy members were present.

"The Effects of Fission Radiation" was the title of a paper by DR. CLARK BROWN, director of Lankenau Hospital, Philadelphia. He discussed the history, chemical aspects and structure of the atoms, and illustrated his talk with many interesting slides of pathological specimens of the Bikini and Japanese atom bombs. The paper was discussed by Dr. Philip D. Gilbert. Along the same line, DR. HAROLD K. EYNON presented an outline of "The Present Status of Medical Defense in Camden County".

The following were elected to membership: DRS. JOSEPH M. DELUCA, ROWAN C. PEARCE, JR., ALBERT H. HELM, ORAM R. KLINE, JR., CHARLES R. DUGAN, WILLIAM R. STEVENSON and MATTHEW E. JOHNSON. An amendment to the constitution was read for the second time and passed unanimously that the county society dues be raised from $10 to $20.

Dr. Helen Schrack, Historian, has arranged to have Joseph Merante, Jr., of New York, to be present at our meetings to photograph the members of the society. These pictures are to be used in compiling an album of the history of the society.

ESSEX COUNTY

Elizabeth R. Brackett, M.D., Reporter

The fall activities of the *Essex County Medical Society* opened with a dinner meeting held at the Hotel Suburban, East Orange, on October 17, 1951. DR. KENNETH E. GARDNER, President, presided over the meeting of approximately 300 members and guests.

After introducing the honor guests a short business meeting was held, following which the Doctors' Chorus rendered several selections which were received with great applause. Members of the Woman's Auxiliary to the Essex County Medical Society then presented a play written and directed by one of their members, Mrs. John Insabella. "Happy Daze Are Here Again" was a one act satire on Socialized Medicine. The entire action portrayed a series of events in a doctor's office after medicine has been socialized(?). The entire cast of eleven actresses were members of the Auxiliary, each one of whom portrayed her character most vividly and effectively. The audience was an appreciative one and enjoyed many good laughs over the bright lines and excellent acting of the cast. At the conclusion of the play the participants were presented with corsages by the Medical Society as a gesture of appreciation.

The guest speaker of the evening, DR. MASON W. GROSS, Provost of Rutgers University, closed the program with his address on "The Complex Aspirations of the Modern American University".

This was a most enjoyable evening, the only re-

grettable feature being the lateness of the hour when the guest speaker was introduced and the diminution of the audience by this time.

GLOUCESTER COUNTY

Louis K. Collins, M.D., Reporter

The Woodbury Country Club was the scene of a festive occasion on October 18, 1951, when the *Gloucester County Medical Society* held its annual Social Session. Anthony J. DiMarino, M.D., the president, was an admirable toastmaster.

After a delicious steak dinner, Dr. DiMarino presented Sigurd W. Johnsen, M.D., President of The Medical Society of New Jersey, who gave a few well chosen remarks. Next to be heard from was the Executive Officer of the State Society, Mr. Richard I. Nevin.

State Senator Hannold and Assemblyman Silver also made brief statements. Other guests introduced to the one hundred-odd assembled were the editors of the county newspapers, this meeting taking the form of a press conference.

The principal speaker of the evening was Melvin K. Whiteleather, editorial writer for the Philadelphia Evening Bulletin. In discussing his topic "The World Today", Mr. Whiteleather drew widely on his experience in Russia, Poland, Germany and France, as well as his coverage of the United Nations, et cetera, here at home. Many questions were answered by the speaker at the conclusion of his most interesting and informative address.

HUDSON COUNTY

John L. Varriano, M.D., Reporter

On November 6, 1951, the regular monthly meeting of *Hudson County Medical Society* was held at Murdoch Hall, Jersey City Medical Center. Dr. Harry J. Perlberg, Vice-President, occupied the chair in the absence of the president.

Elected to active membership were Drs. Bernard M. Altschuler and Arnold Topilow of Bayonne; Drs. Robert B. Connolly, John F. Hamill, and Bernard Venin of Jersey City; and Dr. David R. Rounseville of North Bergen.

By unanimous vote, the Society endorsed the candidacy of Dr. Vincent P. Butler of Jersey City for the second vice-presidency of The Medical Society of New Jersey in the election of 1952. The secretary was directed to notify the other component societies of the State of Dr. Butler's candidacy.

The guest speaker of the evening was Dr. William J. Grace of Cornell University Medical College, New York Hospital, who spoke on "Life Stress and Bodily Disease"—emphasizing, particularly, the psychosomatic aspects of gastro-intestinal disease.

MERCER COUNTY

W. Laurence Bonnet, M.D., Reporter

The Annual Meeting and Banquet of the *Mercer County Component Medical Society* was held at the Trenton Country Club, November 15, 1951, Dr. F. K. Engelhart, presiding. Dr. Raymond A. McCormack and his committee are to be congratulated upon the efficient manner in which they conducted all details of the very successful banquet. Dr. Ed Waldron served as Toastmaster in his own inimitable style, and contributed generously of his talent to a most enjoyable evening.

The guest speaker was Mr. Richard I. Nevin, Executive Officer of The Medical Society of New Jersey, who brought greetings to the membership from the officers of the state organization, and gave a most interesting and inspiring talk on the challenge with which the medical profession is faced today, and the manner in which it is being met.

President Engelhart called upon the sponsors to introduce their candidates who were elected to membership in the Society during the year.

At the conclusion of the meeting, the following were declared elected to various offices for the ensuing year, their terms beginning in May 1952, with the exception of those elected to serve as Delegates and Alternates to State Society annual meetings and those elected to serve on the Judicial Committee and District Judicial Council, whose terms are to commence, as indicated:

President, Dr. John F. Kustrup
Vice-President, Dr. Ernest F. Purcell, Sr.
Secretary-Reporter, Dr. A. Albert Carabelli
Treasurer, Dr. Raymond A. McCormack

Council Members (for terms of three years each): Dr. DeWitt H. Smith and Dr. Henry S. Urbaniak.

Delegates and Alternates (to State Society Annual Meetings) for three-year terms commencing with the 1952 Annual Meeting: Delegates—Dr. D. B. Ackley, Dr. Max Friedman, Dr. Samuel Blaugrund, Dr. R. John Cottone, Dr. E. F. Purcell, Sr., Dr. J. M. Schildkraut, Dr. J. N. Zimskind, Dr. Nathan Swern; Alternates—Dr. C. C. Chianese, Dr. Meyer H. Friedman, Dr. Robert Forer, Dr. J. F. Pessel, Dr. W. L. Bonnet, Dr. E. B. Beairsto, Dr. W. E. Montford, and Dr. John F. Kustrup.

Nominating Committee: Delegate—Dr. D. Leo Haggerty; Alternate—Dr. Samuel Blaugrund.

Members elected to Judicial Committee for terms of five years each, commencing at once: Drs. William C. Ivins, John L. Wykoff, J. N. Zimskind, James R. Harman, and R. John Cottone.

Member to serve on District Judicial Council from date of election until May 31, 1953: Dr. D. Leo Haggerty.

Member to serve on District Judicial Council for a term of two years, commencing the 31st day of May 1952: Dr. L. Samuel Sica.

MIDDLESEX COUNTY

Frank L. Paret, M.D., Reporter

The October meeting of the *Middlesex County Medical Society* convened at the E. R. Squibb & Co. Auditorium, New Brunswick, at 8:45 p. m., on October 10, 1951, with Dr. Marshall Smith, President, presiding.

Dr. George J. Schejbal of Fords was elected to a two-year period of Associate membership. Dr. Murray Wagman of Metuchen was elected to Regular membership from Associate status. Dr. Charles

GANDEK of Piscataway town was elected to Regular membership on transfer from Warwick County, Va., and DR. WILLIAM F. MURRAY of Perth Amboy to Regular membership on transfer from Nassau County, N. Y.

Dr. B. Howley, chairman of the committee to investigate the desirability of a medical school in Middlesex County, reported that a meeting had been held and a decision made that a medical school would be desirable in New Brunswick, associated with Rutgers University, and the A.M.A. Commission was advised of its findings on July 5, when it passed through New Brunswick.

The National Defense Council recently requested the collection of three million pints of blood during the coming year. Towards this end, the American Red Cross set up the Plainfield-North Plainfield Blood Collection Center last August—which the County Medical Society approved and to which Dr. Sylvan Moolten was appointed as our representative consultant.

The Nominating committee, to report at the November meeting, was appointed as follows: Dr. Martha Leonard, chairman; Drs. N. B. Cole, Raymond Gadek, Fred S. Taber and Calvert Toy.

Dr. Marshall Smith, chairman of the Disaster Control committee, stated that four first aid stations had been established in Woodbridge and that the mobilization plan for Middlesex County is now supported by the Raritan Area Civil Defense Council, the New Jersey State First Aid Commission and the Middlesex County Association of First Aid Squads. He further stated that the county should take pride in the fact that its plan of Civil Defense has been recommended for adoption on a national basis and Middlesex County is to be given a test run sometime before Christmas.

A word of welcome and an appeal to the Society for support of the United Fund was made by Dr. William E. Bunney, Vice-President in charge of manufacturing for E. R. Squibb & Sons, following which the meeting adjourned for a tour of the plant and refreshments in the company's Cafeteria.

MONMOUTH COUNTY

Sidney M. Hodas, M.D., Reporter

The opening fall meeting of the *Monmouth County Medical Society* was held at the Marine Grill, Asbury Park, on September 26, 1951, with the new president, DR. J. BERKELEY GORDON in the chair.

DR. GARFIELD DUNCAN, professor of Medicine, Jefferson Medical College and director of Medicine, Philadelphia Hospital, gave an excellent presentation on "The Practical Aspects of the Treatment of Diabetes and Its Complications", in which he outlined the latest ideas on the most appropriate use of the various types of insulin.

MR. RICHARD I. NEVIN, Executive Officer of the State Society, give a brief address on the function of the State Society and how it can be of service to the county units.

Dr. Louis F. Albright reported that the Medical-Surgical Plan of New Jersey was considering revisions in its fee schedule to correct certain inequities which may now exist.

DR. MYRON S. DENHOLTZ, now in military service and formerly of Long Branch, DR. JAMES G. MAZZA, Long Branch and DR. ROBERT B. ROBERTSON of Red Bank, were elected to Active membership from Associate membership. DR. ARLINGTON BENSEL, Asbury Park, a transfer from the Essex County Medical Society, was also elected an Active member.

DR. ARTHUR W. FAUST, JR., Long Branch, and DR. ALBERT J. KOLARSICK, Shrewsbury, were voted Associate members.

PASSAIC COUNTY

Leopold E. Thron, M.D., Reporter

The regular monthly meeting of the *Passaic County Medical Society* was held on October 16, 1951, at the Woman's Club, Paterson. SANDOR A. LEVINSOHN, M.D., President, presided at the meeting.

A short business session was held, prior to the scientific meeting, at which the following were elected to Active membership: DRS. FRANK R. SCHELL, Rochelle Park, and PETER C. HOFSTRA, Paterson. Three physicians were elected to Associate membership: DRS. SEYMOUR NOCHIMSON, Paterson, SIDNEY F. WEIN, Passaic, and HERBERT SALZBERG, East Paterson. The following two Courtesy members were elected: DRS. THOMAS V. D'AMICO and SAMUEL R. KESSELMAN, Passaic.

BRET RATNER, M.D., professor of Clinical Pediatrics and associate professor of Immunology, New York Medical College; director of Pediatrics Sea View Hospital; attending pediatrician and head of Pediatric Allergy, Flower and Fifth Avenue Hospitals, spoke on "Allergy in Children", effectively illustrated by lantern slides.

NEW JERSEY BRANCH OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION

E. Barbara Lorentz, M.D., Reporter

The *New Jersey Branch of the American Medical Women's Association* held their fall meeting at the Medical Society Headquarters in Trenton, on October 27, 1951.

DR. CATHERINE HESS, representative of the Philadelphia Branch of the American Cancer Society, spoke on "Early Detection and Prevention of Cancer".

At the business meeting an amendment for Emeritus Membership was passed. It was decided that the New Jersey Branch should take over the publication of one issue of the American Medical Women's Association Journal.

Dr. Ruth Kidd is to be the New Jersey Branch representative to the national mid-year Board meeting to be held on November 10 and 11 at Asheville, North Carolina. Other representatives will be: Dr. Camille Mermod, second vice-president of the national association, Dr. Elizabeth Brackett, Dr. Margaret M. Wurts, Dr. Emma Kyhos, and Dr. M. E. Geib.

WOMAN'S AUXILIARY

Atlantic County

Mrs. Harry Goodman,
Press and Publicity Chairman

In cooperation with the Atlantic City Hospital the November 9, 1951, meeting of the *Woman's Auxiliary to the Atlantic County Medical Society* was held at the Student Nurses Home, Mrs. Matthew Molitch, President of the Auxiliary, presiding.

It was reported by Mrs. Westney, that the December meeting will be for new members, at which time they will be formally welcomed into the Auxiliary. A Christmas play is also planned for that night with members of the Auxiliary participating. The Medical Society will be our guests for the evening.

We have been informed that Mr. Richard Nevin, Executive Officer of the State Medical Society, will be the speaker for the afternoon of the Community Day Tea.

Mrs. Samuel Diskan, chairman of Nurse Recruitment, stressed the vital need for more nurses. There is also an urgent need for more blood donors. It was stated that from fifteen to twenty-five pints of blood are given to each severe case in the Korean War.

In connection with the nursing shortage, the Auxiliary will shortly consider applicants for the $700 Nurses Scholarship which is awarded by the Auxiliary to a worthy student nurse upon completion of her first six months of pre-clinical training. A table will shortly be set up for nursing literature in the Atlantic City Public Library. The Nurses Alumnae of the Atlantic City Hospital and the Nurses Registry of Atlantic City are both starting a nurse recruitment committee and will work with our Auxiliary.

Guest speaker for the evening was Miss Kathryn deSales Corcorcan, assistant superintendent of nurses. Her topic was "Requirements for a Nursing Career".

The evening was concluded with a Fashion Show of Nurses Uniforms. This delightful show was put on by the nurses.

Burlington County

Mrs. A. Ziccardi, Publicity Chairman

The *Woman's Auxiliary to the Burlington County Medical Society* met on October 9, 1951, to honor our State President, Mrs. Thomas McGlade, and President-Elect, Mrs. Edward Dyer, at the home of Mrs. S. Emlen Stokes, Moorestown, for a luncheon-tea.

Our Annual Public Relations Tea was held in Moorestown on November 6. Dr. Frederick Moench, Trenton, Director of State Civil Defense, was the speaker. Dr. T. Bruce Dickson, President of the Burlington County Medical Society, also addressed the group.

Camden County

Mrs. Leland M. Stetser,
Chairman, Press and Publicity

The *Woman's Auxiliary to the Camden County Medical Society* now has eleven student nurses attending the Cooper and West Jersey Hospitals in Camden through its Nurse Recruitment and Scholarship program. On October 30, 1951, a card party was held at the Haddon Fortnightly in Haddonfield to raise money for this project. Mrs. Richard Conlen and Mrs. James Collier of Collingswood and their committees are responsible this year for the successful outcome of the party.

The 25th Anniversary Dinner given on Saturday evening November 10, by the Auxiliary for doctors and their wives was a social success. The Woodcrest Country Club provided the setting for the affair, which was another event of this year given to commemorate the group's silver anniversary. Mrs. George B. German of Merchantville was chairman of Arrangements. Mrs. Harold F. Westcott, President of the Camden County Auxiliary introduced Dr. Sigurd W. Johnsen of Passaic, President of The Medical Society of New Jersey, Mrs. Thomas H. McGlade of West Collingswood, President of the State Auxiliary, and Dr. Walter A, Crist of West Collingswood, President of the Camden Coounty Medical Society, who were honored guests.

Cape May County

Mrs. Paul Yingling, Publicity Chairman

The President of the Auxiliary to The Medical Society of New Jersey, Mrs. Thomas H. McGlade of West Collingswood, and State President-Elect Mrs. Edward H. Dyer, of Ventnor were guests at the first regular meeting and luncheon of the *Auxiliary to The Medical Society of Cape May County* on October 16, 1951. Mrs. William H. Doebele, President, presided.

Mrs. McGlade outlined the work of the Auxiliary and discussed the various committees.

Instead of having each Committee Chairman report at the meeting, we have decided to have the minutes of the Executive Board Meeting read, the Board having read and discussed the reports.

Since our Auxiliary is very small and the members live so far from each other, we are not having another meeting until January.

Essex County

Mrs. Louis L. Covino,
Chairman, Press and Publicity

Our Fall Meeting and Luncheon was a most pleasant event. Many of our members came out to honor the women from the *Essex County Medical Auxiliary* who hold office in the State Auxiliary. Also as guests of honor were Mrs. Thomas McGlade of West Collingswood, President of the State Auxiliary, and Mrs. Edward Dyer of Ventnor, State President-Elect.

Mrs. John Torppey, our president, presided at the meeting held on October 22, 1951, at Mayfair Farms, West Orange. Following the luncheon, Mrs. Torppey turned the meeting over to the Program chairman, Mrs. Stuart Hawkes. Mrs. Hawkes presented Kenneth Gardner, M.D., President of the Essex County Medical Society, who gave a brief message to the women. Mrs. McGlade was intro-

duced to the group and she congratulated the Essex County Auxiliary on the splendid work that is being done.

A very impressive Memorial Service was conducted by Mrs. George A. Rogers of New Hope, Pa., for four deceased members. Mrs. Rogers was our first president twenty-five years ago.

Mrs. Otto Matheke, Jr., was Hospitality chairman and Mrs. Thomas Santoro was in charge of Reception.

Another important event on our calendar was our Annual Auxiliary Dance which was held at the Hotel Suburban, East Orange, on November 3. The cocktail hour preceding the buffet supper and dance, was a gay beginning to a delightful evening. The entire proceeds of this dance go to our important project—"Nurse Scholarship Fund".

Mrs. Joseph Clarken was chairman and was ably assisted by her co-chairman, Mrs. Frank Forte, plus the capable committee they chose to work with on this important fund-raising event.

In closing this report, to ALL, a very MERRY CHRISTMAS and a HAPPY NEW YEAR.

Hudson County

Mrs. Sydney Chayes, Chairman of Publicity

A program on legislation featured the regular monthly meeting of the *Woman's Auxiliary to the Hudson County Medical Society* held at Murdoch Hall, Jersey City, on November 5, 1951. Mrs. Morris Bresev presided and introduced the guest speaker of the day, Mrs. Anton Randazzo, state chairman of Legislation.

Mrs. Andrew Ruoff, Mrs. Henry Chieffo and Mrs. James Tsucalas discussed current legislation with Mrs. James Murphy, chairman, as moderator.

A film entitled "Inflation" with Don Ameche as commentator was shown through the courtesy of the National Association of Manufacturers.

Refreshments preceded the meeting with Mrs. Joseph Giannasio and Mrs. Michael Cerchio as hostesses for the afternoon.

Middlesex County

Mrs. Louis Krafchik, Chairman of Publicity

The *Woman's Auxiliary to the Middlesex County Medical Society* held their first regular meeting for 1951-52 on October 17, 1951, at Woodlawn, New Brunswick, with Mrs. Norman Rosenberg, presiding.

Several new members were admitted and plans and programs were formulated for the remainder of the year. These include a Christmas dinner as guests of the County Medical Society in December, and a dinner dance in March to raise funds for the nurse's scholarship, which is again one of our main projects.

Monmouth County

Mrs. Donald Bowne,
Chairman, Press and Publicity

On October 23, 1951, our monthly meeting was held at Lincroft Inn. The hostess, Mrs. John Mohair, also chairman of Legislation, introduced the speaker of the day, Dr. C. Byron Blaisdell of Asbury Park. Dr. Blaisdell spoke of "Current Trends in Legislation".

Mrs. Victor Siegel, Red Bank, President, announced that the auxiliary had taken part in a meeting of the woman's division of the Monmouth County Safety Council the preceding Monday at the Red Bank Woman's Club.

Fancy Hat Dance was held on October 31, at Beau Rivage for the benefit of the Nurses' Scholarship Fund. Mrs. Edward Dengrove, chairman, announced that the dance was a tremendous success, both socially and financially. Many weird and beautiful hats were worn, and prizes were awarded to various classifications making a thoroughly enjoyable as well as profitable evening.

Passaic County

Mrs. Joseph E. Mott,
Chairman, Press and Publicity

Richard I. Nevin, Executive Officer of The Medical Society of New Jersey, was guest speaker at the first luncheon meeting of the fall season of the *Woman's Auxiliary to the Passaic County Medical Society,* held on October 15, 1951, in the Alexander Hamilton Hotel, with Mrs. Theodore K. Graham, President, presiding.

Mr. Nevin, who was introduced by Mrs. Paul E. Rauschenbach, chose for his topic "Medicine and the Challenge of Today". In discussing the advances made in the field of medicine he cited the fact that today's span of life is set at 60, whereas a decade ago the figure was 45, and in the days of the Romans it was 18 to 22.

At the business meeting which followed, reports were given by the secretary, treasurer, and chairmen of the various committees.

Plans were discussed for the annual dance of the auxiliary which will be held on December 8 at North Jersey Country Club. Mrs. David E. Zuckerman has been named chairman and her committee will be announced later.

Union County

Mrs. Bertram J. L. Sauerbrunn, Publicity Chairman

The first meeting of the 1951-52 season of the *Woman's Auxiliary to the Union County Medical Society* was called to order by the president, Mrs. Austin Tidaback on October 9, 1951, at the Suburban Hotel in Summit.

One hundred and fifty members and their guests were present. A luncheon was followed by a brief business meeting. Mrs. Tidaback announced that the Annual Reception for Prospective Nurses will occur on November 24, at the Hotel Winfield Scott in Elizabeth. The feature of this affair will be the awarding of prizes to the winners of the Essay Contest "Why I Want to Become a Nurse". Mrs. Paul Kreutz is in charge of the competition which is open to all Junior and Senior High School girls in Union County.

Following the business meeting, Mrs. Robert Yuckman, Program chairman, introduced a fashion show, the featured entertainment of the afternoon. Assisting her with arrangements were Mrs. Elwood MacPherson, Mrs. Robert Boyd, Mrs. Edward T. Lynch, and Mrs. Joseph Mast.

BOOK REVIEWS

Low-Sodium Diet. By T. B. Rice, M.D. Pp. 103. Philadelphia, Lea and Febiger, 1951. ($2.75)

This little volume is a practical guide for the patient who has been placed on a low salt diet. The first ten chapters outline clearly for the non-scientist the nature of sodium, its source in foods and medicines, its edema-producing effect, and the details of obtaining low-sodium foods. Special features are the emphasis on the low-sodium diet as an auxiliary form of treatment, the advice that such a diet does *not* cure the underlying disease but merely aids in its management, and the many litle helpful tips, such as what to do when eating out, warning signs of excessive salt intake and the low salt syndrome, and its morale-raising encouragement. Since the author himself has been on the low salt diet, he is well aware of the difficulties encountered in obtaining the proper foods and in making them palatable. The remaining chapters include sodium analysis tables of the common foodstuffs and suggested menus. There is a section on the sodium content of water in various cities throughout the country, and a practical appendix in which the patient may chart his daily weight and dietary deviations, so that he will have a day-to-day record and be able to detect readily any pitfalls in his own adherence to the diet.

Because of its pleasant style and easy readability this book is recommended for any patient for whom the low salt diet is prescribed, and for the person who prepares his food.

R. D. GOODMAN, M.D.

Symbolic Realization. By M. A. Sechehaye. Pp. 185. (1951) New York. International Universities Press. (227 W. 13 St.) ($3.25)

Autobiography of a Schizophrenic. Edited by M. A. Sechehaye. Pp. 159. (1951) New York. Grune & Stratton. (381 Fourth Ave.) ($3.50)

Cure of schizophrenia is unusual. Cure by psychotherapy only is extra-ordinarily rare. These two books constitute a case report of the successful treatment of a schizophrenic girl by a somewhat heterodox analytic technic which the author, a lay analyst, calls "symbolic realization". The technic is detailed in the first of these volumes. The same process, seen through the eyes of the patient concerned, represents the content of the second volume. The girl had been rejected badly by her mother and had regressed into a deep schizophrenic state. Mrs. Sechehaye devoted 7½ years to daily interviews, during which she frankly played a mother role. She sensed the symbolic meaning of toys, food, dolls, et cetera, and used these objects as instruments, first symbolically, then realistically. The painful, often retrogressive, step-by-step improvement is detailed. Many drawings made by the patient are included with excellent interpretative footnotes by the author.

The *Autobiography* is a convincing complement to the first book. When Mrs. Sechehaye offered apples as a symbol for the mother's breast, the patient accepted them in exactly that way. Of course it is hard to tell whether the analyst discovered the right interpretation first; or whether an erroneous interpretation was transmitted to the patient who, in turn, accepted it, and then reproduced it in her *Autobiography*. Either book may be read without the other. Together they constitute food for serious psychiatric thought. Obviously a technic which requires several hours a day of the therapist's time for 7½ years is not practical for a condition as common as schizophrenia. Yet even a single cure by any method is enough to stimulate hope that somehow we will learn to conquer this, the most costly disease of the western world.

SAMUEL POLLACK, M.D.

Pioneer Doctor. By Lewis J. Moorman, M.D. Pp. 252. Norman, Oklahoma, University of Oklahoma Press. 1951. ($3.75)

This is the delightful autobiography of a physician who, at the turn of the century, set out to practice in the one remaining "frontier" of our country: the Oklahoma Territory. Dr. Moorman recalls his Kentucky childhood as a farm boy, the travails of the early and primitive backwoods practice of medicine, and his settling down as a practitioner in the newly opened territory. He describes his later graduate training in Vienna. The last portion of the book is devoted to his work in tuberculosis control, which became his major interest. Aside from being a factual autobiography, the book is enhanced in its enjoyability by Dr. Moorman's excellent literary style, his wide and comprehensive knowledge of the world's literature, and his entertaining anecdotes. His descriptions of the practice of medicine a scant 50 years ago are revelations of his own ingenuity, and the hardiness of our recent forbears.

This book is heartily recommended for the reader in search of a light, readable autobiography, as a welcome change from the heavier tomes of scientific medical literature.

ROMAN KAWALEK, M.D.

Review of Physiologic Chemistry. By Harold A. Harper, Ph.D. 3d edition. 1951. University Medical Publishers, Box 761. Palo Alto, California. Pp. 260. ($3.50)

It is unfortunate that we clinicians have allowed a gap to develop between ourselves and the physiologic chemists. Except when he is preparing for the American Board Examinations in internal medicine, the average practitioner is hopelessly unfamiliar with the chemistry of such processes as respiration, excretion, enzyme actions, fat metabolism or osmosis. This is too bad, for man is a walking laboratory of biochemistry and nearly all diseases have their biochemical concomitants. Most of us are too old to start learning physiologic chemistry from the ground up. The standard textbooks—Baldwin, Bodansky, Harow, Hawk and others—are either absent from our libraries, gather dust on our shelves, or overwhelm us with structural formulae and complex equations when we do consult them.

All this is by way of introduction to the current edition of Dr. Harper's *Review*. The book is spiral-bound and is reproduced by some sort of offset or electrotype process that make it look like a mimeographed document. These are trivial defects, however. The value of the text is that it is concise—sometimes too concise—and within the ken of the clinician. Some subjects—the biochemistry of nerve action for example, or the role of nucleic acids—are, I think, treated too briefly. But in general, the *Review* does offer a compact, readable summary of the clinically important aspects of biochemistry. It is a handy book for the pathologist, a good reading item for the doctor preparing for a Board examination (whether specialty board or state board), and a comforting reference work for the general practitioner.

ULYSSES M. FRANK, M.D.

Clinical Pediatric Urology. By Meredith Campbell, M.D., Elvira Goettsch, M.D., and John D. Lyttle, M.D. 1113 pages with 543 figures. Philadelphia, Saunders, 1951. ($18.00)

Only Dr. Campbell with his 33 years of experience in urology in infants and children could write and produce such a comprehensive work on pediatric urology. This book is a "must" for all pediatricians and general practitioners whose practice is made up largely of infants and children. It will help the practitioner achieve earlier recognition of urologic disorders and aid him in seeking proper treatment. The introduction of excretory urography and the clinical demonstration of an unsuspected high incidence of urinary tract anomalies and their complications, as well as the use of many new miniature cystoscopes, rectoscopes and other small urologic instruments, have demonstrated that a complete urologic examination, diagnosis and treatment can be given from the newborn infant on through all ages of childhood.

Dr. Campbell has an extraordinary understanding of the psychologic importance of urologic disease in children, particularly in his chapter on enuresis, which every pediatrician will devour eagerly. The theory that young children do not stand examinations or procedures well is disproved by the proper psychologic handling of the infant and child. The chapter on pediatric urologic nursing (by Helen Goddard of the Children's Medical Center in Boston), should be distributed to all pediatric nursing staffs to serve as a model for pediatric nursing care.

The chapter on nephritis, nephrosis and allied diseases in infancy and children (by Dr. Elvira Goettsch and the late Dr. John D. Lyttle) are complete even to opinions as to ACTH and cortisone therapy.

Pediatric Urology should be in every pediatrician's working library for constant use and reference; only then can he appreciate the many valuable aids and suggestions throughout the book.

A. S. FINKELSTEIN, M.D.

Better Nursing. By Jean A. Curran, M.D., and Helen L. Bunge, R.N. Seattle. The University of Washington Press. 1951. Pp. 174. ($3.00)

Members of the Washington State Medical Association were asked whether modern educational methods are providing professional nurses adequately trained in the care of the sick. Seventy-five per cent of the doctors said "no". By "modern educational methods" was meant the trend towards requiring student nurses to take a four-year college course leading to a baccalaureate degree. The doctors seemed to feel that such training led nurses into executive, managerial and teaching posts but did not make them want to do routine bedside nursing. This book is a defense of the trend towards higher education, giving reasons why the "degree" nurse, in the long run, will mean better care for patients. It is also a plea for accepting the nurse more as a professional co-worker and less as a girl Friday. While the survey is limited to the state of Washington, its implications and applications are, of course, of nationwide scope. The book offers a dozen recommendations designed to lead to better care. One is the inclusion of formal scientific programs for nurses at state medical meetings. Another is the indoctrination of physicians as to the value of good nursing services. It is suggested that existing "diploma" schools (hospital apprenticeship courses) be strengthened, that in-service training for graduate nurses be continuous, that the program for practical nurses be expanded and that the nurse's job be more sharply defined.

VICTOR HUBERMAN, M.D.

Let's Have Healthy Children. By Adelle Davis, M.S. Pp. 314. New York, 1951. Harcourt Brace. ($3.00)

Let's Cook It Right. By Adelle Davis, M.S. Pp.626. New York, 1951. Harcourt Brace. ($3.00)

Adelle Davis (Mrs. George Leisey) is a nutritionist with a knack for sparkling writing, a lot of solid common sense, and a fair number of personal dietetic crotchets. *Let's Cook it Right* is a handy reference work, crammed with recipes, that makes good cookery an adventure for the homemaker. She makes meal production seem like an integral part of daily living, as indeed it should be. She even gives helpful hints on the care and feeding of dinner guests which, if followed, will improve both the nutritional status of the guests and the social status of the hostess. There is advice on how to organize the kitchen for efficiency and how to purchase food and equipment wisely. Planning and procedures are simplified in such a way that even the timid housewife is tempted to try her hand. The basic nutritional material is scientifically sound and the book should be valuable both to the institutional dietitian and to the housewife.

Let's Have Healthy Children is written in an interest-catching, woman-to-woman style. The text covers the nutritional hygiene of pregnancy and nursing as well as problems in the feeding of infants and growing children. Good tables of food analyses are included. Most of the material is well grounded and will be echoed by most pediatricians. Some obstetricians may disagree with Miss Davis' emphasis on the essentially nutritional prophylaxis of the toxemia of pregnancy, and will doubt the desirability of any woman trying to prevent eclampsia by reading a book. Not all dietitians share the author's approval of "health food"

stores and some will find her passion for blackstrap molasses as hard to swallow as the molasses itself. With respect to the controversy about early feeding of solids to babies, Miss Davis lines herself squarely with the "antis". Her general advice on child feeding, while usually sound, is sometimes a bit dogmatic. Many physicians will reject her thesis that faulty nutrition is a major cause of poliomyelitis, allergies, heart disease, breast abscesses, cancer and multiple sclerosis. The danger of this kind of peripheral guide for laymen is exemplified by a sentence like this: "A neighbor of mine . . . is being indoctrinated with my ideas. Although she has an excellent pediatrician, she plies me with questions concerning infant feeding and is not averse to imitating my procedures. Since her baby has had pneumonia, she first added vitamin C to each bottle of her formula. She next added blackstrap molasses and was quickly convinced of its value."

See what I mean?

KATHRYN A. MCHENRY

Surgical Care; a Practical Physiologic Guide. By Robert Elman, M.D. Pp. 586. New York, Appleton-Century-Crofts, Inc., 1951. ($8.00)

To most busy surgeons the study of "pure" physiology is often a tedious and forgotten task. Passage from test tubes to the operating theater often becomes a maze of complicated biochemical equations, physical laws, and intricate theory. Books previously written on the subject have done little to make the transition easy or interesting. In this volume, however, Dr. Elman essays the task with skill and aplomb. The text covers most of the physiologic principles of pre- and postoperative care in a highly readable manner. The author makes good use of his extensive clinical material from which he borrows appropriate examples to illustrate the principles involved. References to involved animal experiments with clinical application and long scientific disputations are kept at a minimum. As a result, the reader feels almost as though he is standing at the bedside or at the operating table listening to the author lecture.

There is an excellent section on the psychogenic factors in surgery, a subject which is coming more and more to the fore with each succeeding generation of surgeons. The surgeon's relation to the patient as well as to his colleagues, to the hospital staff and personnel, is well set forth. Considerable attention is given to the routine day-in-and-day-out niceties of patient care so important in preparation, operation and convalescence. Modern surgery is a "team game", as Dr. Elman well recognizes, and the best score is obtained by that group whose individual scores are the best.

The "alarm reaction" of Selye has aroused widespread interest since the theory was initially propounded in 1936. Great stimulus has been given more recently to this concept since the isolation and widespread clinical use of ACTH and cortisone. In this phase of physiology, Dr. Elman is particularly interesting, and (perhaps even more important) understandable. The evolution of the principles of the systemic reactions to trauma continues steadily and even though in a year or two the concepts as enunciated by the author may be outmoded or superseded, it is the opinion here that the book contains in a concise and intelligible fashion the best current exposition. The volume is of considerable moment to the student of surgery, both on the house staff level, where it should be eagerly received, and to the practicing surgeon who, perhaps, may better appreciate why saline is not indicated in the immediate postoperative period or why the potassium ion may determine the success or failure of an operation.

S. DOUGLAS MURRAY, M.D.

Practical Clinical Psychiatry. By Edward A. Strecker, M.D., Franklin G. Ebaugh, M.D., and Jack R. Ewalt, M.D. Ed. 7. Philadelphia, 1951, The Blakiston Company. Pp. 506. ($7.00)

As in all previous editions of this standard work, Dr. Strecker and his colleagues still think of psychiatry as, in substance, the care of the insane. Each edition has shown progressively more space devoted to the psychoneurotic. But even in this, the latest revision, the psychoneurotic receives less than 90 of the book's 500 pages. The chapters on the psychoses are excellent. Descriptions are vivid, case illustrations are appropriate, and diagnostic and therapeutic suggestions are practical. One is a little surprised at finding in a book with a 1951 date-line, a chapter headed "Constitutional Psychopathic Inferior". That last word "inferior" was abandoned about a quarter of a century ago in most "official" nomenclatures.

Material on the psychoneurotic is handled in a "common sense" and, in some respects, a non-dynamic fashion. This book has gone through seven editions in 26 years, a fact which indicates that it *is* meeting the needs of general practitioners and medical students for a compact handbook of intramural psychiatry.

WILLIAM SCHRAM, M.D.

Science French Course. C. W. Moffat and Noel Corcoran. 1951. Brooklyn 2, New York. Chemical Publishing Company. Pp. 332. Ed. 3. ($4.75)

If you already have a smattering of French, this book will help you learn to *read* (but not to speak or write) the language. The first hundred pages are devoted to a sort of reference grammar, not graded in lessons, but set up in sections such as "regular pronouns" or "irregular verbs". This is followed by 25 pages of easy reading selections. The remainder of the book is made up of abstracts of French articles covering many sciences—but not including medicine. There is a French-English glossary of scientific terms (few of the words are in medical use) but no English-French vocabulary. The usefulness of the book is thus sharply limited but for the group intended it is a practical little volume. One wishes that the paradigm phrases had been selected for scientific vocabulary as well as to illustrate grammatical construction. Of what value to the scientist such sample phrases (probably accurate, though) as *"N'avoir pas aime, c'est n'avoir pas vecu"?*

HENRI DAVID FILS, M.D.

THE JOURNAL

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Index 1951

Society established July 23, 1766
Journal founded September 1, 1904

VOLUME 48

JANUARY TO DECEMBER, 1951

Published monthly under direction of the
COMMITTEE ON PUBLICATION

J. Lawrence Evans, Jr., M.D., *Chairman*
Sigurd W. Johnsen, M.D. Joseph E. Mott, M.D.
Marcus H. Greifinger, M.D. Ralph M. L. Buchanan, M.D.
Henry A. Davidson, M.D., *Editor*

Miriam N. Armstrong, *Assistant Editor*

Editorial Office
315 West State Street
Trenton 8, N. J.

INDEX---1951

HOW TO USE THIS INDEX

This is a single alphabetical index. When searching for an original article, look under the first significant word in the title. Authors are also listed alphabetically, with an asterisk (*) to indicate if reference is to an original article. Editorials are indexed by first significant word of title or by subject; book reviews by title or subject but not by author. City of residence is indicated for authors of original articles.

If you do not bind your JOURNALS, use the table of pages (below) to find the month of issue to which any page citation refers.

The Official List of Members and Fellows will be found as the Supplement to the April issue. The Transactions of the Annual Meeting appear as a supplement to the August issue.

The annual reports of the committees and officers of the Society are indexed on page 205 of the May JOURNAL.

TABLE OF PAGES

KEY TO SYMBOLS

* Original Articles
† Obituary
e—Editorial
br—Book Review
ab—Abstract

A

B

C

D

E

F

G

* Original article
† Obituary
ab—Abstract
e—Editorial
br—Book review
Annual Reports: May Journal
Official List: April Supplement
Transactions: August Supplement

H

I

J

K

L

M

N

O

P

* Original article
† Obituary
ab—Abstract
e—Editorial

br—Book review
Annual Reports: May JOURNAL
Official List: April Supplement
Transactions: August Supplement

Q

R

S

T

U

V

W

X

Y

* Original article
† Obituary
ab—Abstract
e—Editorial
br—Book review
Annual Reports: May JOURNAL
Official List: April Supplement
Transactions: August Supplement

TUBERCULOSIS

ABSTRACTS

ISSUED BY THE NATIONAL TUBERCULOSIS ASSOCIATION

Vol. XXIV December, 1951 No. 12

OBSTACLES TO THE ERADICATION OF TUBERCULOSIS

James Perkins, M.D., A Lecture Endowed by Michigan Tuberculosis Association, December 4, 1950.

There has been widespread publicity and jubilation over the drop in the tuberculosis death rate from the peaks of about 200 deaths per 100,000 population at the turn of the century to the provisional death rate of 26.1 for 1949.

It is good news! Unfortunately many have the impression that tuberculosis is a problem that is already solved. Yet tuberculosis is the principal communicable disease for the world as a whole. It is estimated that between 3,000,000 and 5,000,000 people die each year throughout the world from tuberculosis. Even in the United States, it causes nearly 40,000 deaths per year. It is the chief cause of death in the United States in the important child-bearing and child-rearing ages of 15 to 34. Because so many people die from tuberculosis in the prime years of life, it causes a potential loss of years of life approximately equal to cancer, and not far behind the combination of diseases called "heart diseases." Today, more cases of tuberculosis are known than ever before, due largely to our improved case-finding programs, and there is good reason to believe that the death rate is dropping faster than the prevalence of tuberculosis. Although eradication is the objective of all voluntary and official health agency workers concerned with the tuberculosis problem, eradication is still a long way off.

There are many obstacles to be overcome—obstacles closely related to the four basic activities in tuberculosis control, namely, case finding treatment, increasing human resistance to tuberculosis, and research. For these activities, numerous tools and techniques are needed. Some of these are an adequate number of trained personnel, adequate physical facilities, health education, laws and regulations, record systems and statistical analyses, and adequate financing.

The chest X-ray of the apparently well adult is probably the most important aspect of case finding. While the annual physical examination, including a chest X-ray, for every adult is still advised, a more practical goal from the standpoint of tuberculosis control is the annual chest X-ray without the complete physical examination. In a series of fast-tempo, short period, large city chest X-ray campaigns since 1947, over 4,000,000 people have been X-rayed. This is a remarkable undertaking. In these campaigns, about 0.3 per cent significant tuberculosis has been discovered and most of them were previously unknown to the health departments. Ideally, there should be adequate facilities for every adult to have a free chest X-ray every year in his own community.

Treatment properly includes all aspects of supervision and guidance of the patient and his family from diagnosis through to recovery or fatal termination. This, then, involves supervision by the health officer and public health nurse; assistance to the family by social workers and welfare authorities; medical therapy; and the whole process of rehabilitation. As with other communicable diseases an adequate local health department is necessary to conduct such a program.

Supervision of tuberculosis patients is possible only if there are public health nurses available to give this supervision. The public health nurse is the G.I. on the firing line. She must be directed by a competent health officer, and there must be adequate community facilities for hospitalization of the tuberculosis patient and for assistance to his

family. But the public health nurses are the combat troops who make or break a tuberculosis control program. It is estimated that about 5,000 more public health nurses are needed for even a minimum public health nursing program.

There is a serious shortage of tuberculosis hospital beds and there is also a serious shortage of the whole gamut of the army of personnel necessary to the smooth running of a tuberculosis hospital. From the standpoint of personnel and of newer developments in therapy, it is increasingly desirable to locate tuberculosis hospitals in proximity to medical centers in the city.

The public and the medical profession still have not accepted universally the fact that tuberculosis is a communicable disease and must be treated as a public health problem. Too often the means test is applied before a tuberculosis patient is permitted to enter a hospital and before welfare assistance is granted to his family.

Another obstacle to more rapid control of tuberculosis is the frequency with which patients leave hospitals against medical advice. Two factors seem to be responsible. The first is the matter of communities providing inadequate assistance to the family. The second factor is failure on the part of hospital personnel to consider adequately the personal and emotional problems of tuberculosis patients. Rehabilitation services are needed also to bridge the gap between the tuberculosis hospital and full employment. Another obstacle in the field of treatment is the lack of a completely satisfactory antibiotic or chemotherapeutic agent. Streptomycin and para-aminosalicylic acid combined have proved very helpful in certain types of tuberculosis. However, the tubercle bacillus readily develops resistance to it.

There are two main aspects to tuberculosis control through increasing resistance to tuberculosis. Probably, the most important factor in the non-specific category is adequate nutrition. There are still many people who lack or fail to utilize the modern knowledge of nutrition or are too poor to provide adequate nutrition for themselves and their families.

With regard to specific active immunization against tuberculosis, the only accepted vaccine available is BCG (Bacillus of Calmette-Guerin). The vaccine is safe and there is evidence that the vaccine is helpful as a supplement but it has definite limitations. There is great need for a better vaccine—one which may be given to everybody; one which is not only safe but without severe reactions; preferably one consisting of killed micro-organisms; and one which produces a solid immunity.

All of the obstacles mentioned indicate the need for further research concerning all aspects of tuberculosis—further clarification of its epidemiology; better methods of health education and motivation; increased knowledge of the psychiatric problems of the tuberculous patient and his family; better methods of medical and surgical treatment; improved programs of rehabilitation; the development of a better anti-tuberculosis vaccine; and more precise knowledge of the tubercle bacillus itself—its genetics, physiology, chemical composition, and immunological properties of its various chemical components.

The present world crisis is a threat to the eradication of tuberculosis, as well as to every other ideal of the free peoples of the world. Millions of our citizens will have intimate contact with others all over the globe in the years to come, including areas of very high prevalence of tuberculosis. Such mixing will be on unprecedented scale and will occur through troop movements, the program of technical assistance to backward areas, through service in the diplomatic corps, and in commercial ventures.

In spite of the uncertain days ahead, there is reason to believe, however, that eventually the obstacles besetting the free peoples of the world, as well as the obstacles in the control of tuberculosis, will be overcome and we shall finally see the day when the dreadful and unnecessary scourge of tuberculosis is a thing of the past.

CLASSIFIED ADVERTISEMENTS

WANTS FOR SALE TO LET
SITUATIONS, ETC.

$3.00 for 25 words or less; additional words 5c each
Forms Close 20th of the Month
CASH MUST ACCOMPANY ORDER

THE MEDICAL FIELD EMPLOYMENT AGENCY
790 Broad Street, cor. Market
Newark 2, New Jersey MItchell 2-1940—1941
Placement for Industry, Pharmaceutical Houses, Doctors' Offices and Institutional help.

SCIENTIFIC JOURNALS WANTED to buy, especially on anatomy, biology, experimental medicine, pharmacology, possibly complete sets. Ashley, 24 E. 21, N.Y.C. (10).

WANTED — EYE PRACTICE OR EENT PRACTICE with good income. Would consider buying or renting property involved. Write Box D, c/o THE JOURNAL.

RENTAL—Established medical office, 1207 Haddon Ave., Camden, N. J. Vicinity Lady Lourdes Hospital. Practice did $25,000 during 1950. No Good Will required. Reception, waiting, two operating, dark rooms. Call WO 3-0116.

FOR RENT — Established medical office for 25 years; 4 rooms—waiting room shared with dentist. Central location. Doctor moving to own home and office. 98 Broad St., Bloomfield, BL 2-8634 or write Box O, c/o THE JOURNAL.

NEW JERSEY—Bergen County, residential community 10,000. Five room office, x-ray, laboratory. Five year lease. Cost of equipment only. Leaving VA appointment. Write Box 12, c/o THE JOURNAL.

NATIONALLY KNOWN PATHOLOGIST AND MEDICAL CONSULTANT wishes to join medical group or hospital; preferably near seaboard. Write Box 14, c/o THE JOURNAL.

OPHTHALMOLOGIST—Active practice and comfortable living quarters in excellent suburban location of Newark, N. J. Pay market value of real estate only. Write Box L, c/o THE JOURNAL.

COMBINATION SOLID BRICK HOME AND OFFICE in fast growing Springfield, N. J., for sale or rent. Presently used as professional office and residence. Option to buy if you rent. Write or phone Ray Bell & Associates, Brokers, 1360 Morris Avenue, Union, N. J. UN 2-6222.

FOR SALE—ENT suction-pressure apparatus in cabinet; Gullstrand giant monocular ophthalmoscope. Call DE 3-8169, Jersey City, N. J.

CHANGE OF ADDRESS

In the event of a change of address or failure to receive THE JOURNAL regularly fill out this coupon and mail at once to

THE MEDICAL SOCIETY OF NEW JERSEY, 315 W. State St., Trenton 8, N. J.

Change my address on mailing list

From .....

To .....

Date..... *Signed*..... *M.D.*

INFORMATION FOR READERS AND CONTRIBUTORS

The Journal is the official organ of The Medical Society of New Jersey, published monthly under the direction of the Committee on Publication. *The Journal* is released on or about the tenth of each month, and a copy is sent to each member of the Society.

Change of Address: Notice of change of address should be sent promptly to The Medical Society of New Jersey, 315 West State Street, Trenton 8, New Jersey.

Communications: Members are invited to submit to *The Journal* any suggestions for the welfare of the Society, as well as comments or criticisms of any material in *The Journal.* All such communications should be directed to the Editorial Office of *The Journal.* The Publication Committee reserves the right to publish, reject, edit or abbreviate all communications submitted to it.

Contributions: Manuscript submitted to *The Journal* should be typewritten, double-spaced on letter-size (about 8½ by 11 inch) paper, and forwarded to the Editorial Office at the address below. The Publication Committee expressly reserves the right to reject any contributions, whether solicited or not; and the right to abbreviate or edit such contributions in conformity with the needs and requirements of *The Journal.* Galley-proofs of edited or abbreviated manuscripts will be submitted to authors for approval before publication. Every care will be taken with the submitted material, but *The Journal* will not hold itself responsible for loss or damage to manuscripts. Authors are required to submit original copies only, and are urged to keep carbon copies for reference. It is understood that material is submitted here for exclusive publication in this *Journal.*

Illustrations: Authors wishing illustrations for their articles will submit glossy prints or original sketches, from which cuts or plates will be made by *The Journal.* The cost of making such cuts will be borne by the author, who will, after publication, receive the cuts for his own use. The cost of these cuts varies with the size and type of the illustration, but averages about five dollars for a 3-by-3-inch plate. An estimate of the cost will be submitted to authors before the cuts are ordered.

THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Editorial Office, 315 West State Street, Trenton 8, New Jersey

Rapid Clinical Response

PARKE, DAVI

with

Chloromycetin®

MEANS EARLY RETURN TO NORMAL ACTIVITIES

Continuity of treatment with well-tolerated CHLOROMYCETIN produces a rapid clinical response in a wide variety of bacterial, viral, and rickettsial diseases. Convalescence is smooth, and an early return of the patient to his normal activities may be anticipated.

CHLOROMYCETIN (chloramphenicol, Parke-Davis)
is supplied in the following forms:

CHLOROMYCETIN Kapseals,® 250 mg., bottles of 16 and 100.

CHLOROMYCETIN Capsules, 100 mg., bottles of 25 and 100.

CHLOROMYCETIN Capsules, 50 mg., bottles of 25 and 100.

CHLOROMYCETIN Ophthalmic Ointment, 1%, ⅛ ounce collapsible tubes.

CHLOROMYCETIN Ophthalmic, 25 mg. dry powder for solution, individual vials with droppers.

COMPANY

MEDICAMENTA VERA · P & CO.

Cow's milk traditionally supplies protein needed for the infant's growth and development. But to "spare" all this protein for its essential tissue-building functions, generous amounts of carbohydrate are needed—more than are provided by the milk alone.

To supply the classic caloric distribution of 15% protein, 35% fat and 50% carbohydrate, approximately 5% carbohydrate must be added to a typical milk-and-water mixture. This may be roughly calculated as 1 tablespoon Dextri-Maltose® to each 5 ounces of formula.

For forty years, cow's milk and Dextri-Maltose formulas with these approximate proportions have been used with consistent clinical success.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U.S.A.

The 185th Annual Meeting

OF

THE MEDICAL SOCIETY OF NEW JERSEY

Haddon Hall, Atlantic City, New Jersey, May 14, 15 and 16, 1951

THE OFFICIAL TRANSACTIONS

TABLE OF CONTENTS

(Alphabetical Index on Other Side)

Issued as a Supplement to The Journal of The Medical Society of New Jersey, August, 1951

INDEX

THE MEDICAL SOCIETY OF NEW JERSEY

Tuesday Morning Session—May 15, 1951

The One Hundred Eighty-fifth Annual Meeting of the House of Delegates of The Medical Society of New Jersey convened in the Hotel Haddon Hall, Atlantic City, New Jersey, at 10:05 a. m., Dr. Aldrich C. Crowe, President of the Society, presiding.

PRESIDENT CROWE: The House will come to order. I ask the Secretary, Dr. Greifinger, if a quorum is present.

SECRETARY GREIFINGER: We have a quorum.

DR. CROWE: It is a privilege and a pleasure to welcome you to the 185th Annual Meeting of The Medical Society of New Jersey. I greatly appreciate the cooperation that all of you have given me. This has been a strenuous year, but, a pleasant one. We have had many problems which necessitated many conferences and journeys within and without the state. One of our high priority projects was civilian defense. This has been so very ably handled by Dr. Andrew F. McBride, Jr., and his committee. Dr. William G. Herrman agreed to serve as Chairman of the Physician Resources Committee when he was sorely needed. He has done a very unselfish and strenuous piece of work.

Your Officers and chairmen, together with their committees have served the Society very well during this past year. It is impossible for me to thank each one of you personally, but, I would be very negligent if I did not take this opportunity to thank the Chairman of the Welfare Committee, Dr. Samuel Blaugrund; Chairman of the Board of Trustees, Dr. David B. Allman; the incoming President, Dr. Sigurd W. Johnsen; our first and second Vice-Presidents, Dr. Harrold A. Murray and Dr. Henry B. Decker; also Dr. Royal A. Schaaf, for their excellent advice and support.

The office staff, as usual, has done an outstanding job and I want publicly to express my appreciation to Mrs. Edith Madden and the executive and JOURNAL office staffs. As you well know we lost the valuable services of our Executive Officer, Mr. James Bryan. In the interim, Dr. Joseph Mott came to our assistance in charge of public relations. He has done a most efficient job. We were faced with the task of securing an Executive Officer and I can assure you it was quite a problem. We have solved this problem very admirably in the selection of Mr. Richard Nevin. I take pleasure in introducing your new Executive Officer, Mr. Richard I. Nevin. (Applause)

Now we will proceed with the regular order of business.

I ask for approval of the *Transactions* of the 1950 meeting of the House of Delegates, published as a supplement to the August, 1950, JOURNAL of The Medical Society of New Jersey.

DR. JOSEPH G. COLEMAN (Sussex County): I so move.

DR. DAVID B. ALLMAN (Atlantic County): I second it.

PRESIDENT CROWE: All in favor of the motion let it be known by saying "Aye". So ordered. This year we have introduced some innovations and the next item is a novel one in the schedule of the House of Delegates.

It has been felt that the incoming President hasn't had quite the spot that he should have in our program. Here is the man who is going to be the head of our Society for one year and we have always relegated him to the end of the meeting. Of course he will be inducted at the end of the meeting, but I have placed Dr. Johnsen, the incoming President, as the next item on the agenda; and it gives me great pleasure at this time to present our incoming President, Dr. Sigurd W. Johnsen. Dr. Johnsen.

(The Delegates arose and applauded.)

(Dr. Johnsen then read his remarks.*)

PRESIDENT CROWE: Dr. Johnsen, that was really very wonderful. I wish to announce the appointment of Dr. Royal A. Schaaf as Parliamentarian, and Dr. Lee and Dr. Wikoff as Sergeants-at-Arms.

We have another change this year in the conduct of the House of Delegates. We are trying to save your time and streamline our business.

As you came in the door you were given an envelope with annual reports and supplemental reports.** I will ask the Parliamentarian to rule on whether we can on one motion refer those to the proper reference committees.

DR. SCHAAF: I rule that the transmission of the supplemental and annual reports, together with the full list of reports, may be considered as having been read at this meeting, by transmission to the Delegates.

PRESIDENT CROWE: May I have a motion that these reports be referred to the proper reference committees?

* Published in full on page 304 of the July JOURNAL.

** See Appendix to these Transactions.

Dr. Allman: I so move.

Dr. Jerome G. Kaufman (Essex County): I second it.

President Crowe: All in favor of the motion let it be known by saying "Aye"; opposed? So ordered.

Dr. Young, as Treasurer, has a supplemental report.

Dr. Young: According to the motion just passed, I don't believe that will be necessary. The Delegates all have copies.

President Crowe: According to the recent motion, the distributed mimeographed sheets will take care of your supplemental reports. Is that right?

Dr. Allman: That's correct.

President Crowe: Are there any other supplemental reports? (No response.)

Next we will call for new business.

Dr. Schaaf: Mr. Chairman, may I offer the following nominations for membership on the Board of Trustees of the Medical-Surgical Plan and members of the Board of Governors of the Medical Service Administration?

MEDICAL SERVICE ADMINISTRATION OF NEW JERSEY BOARD OF GOVERNORS

Harry N. Comando, M.D.
Samuel A. Cosgrove, M.D.
William F. Costello, M.D.
Elton W. Lance, M.D.
Royal A. Schaaf, M.D.
Rudolph C. Schretzmann, M.D.
Edward W. Sprague, M.D.
John S. Thompson

MEDICAL-SURGICAL PLAN OF NEW JERSEY BOARD OF TRUSTEES

Irving P. Borsher, M.D.
Lewis W. Brown, M.D.
Harry N. Comando, M.D.
Samuel A. Cosgrove, M.D.
William F. Costello, M.D.
William E. Dodd, M.D.
Elton W. Lance, M.D.
Royal A. Schaaf, M.D.
Rudolph C. Schretzmann, M.D.
Edward W. Sprague, M.D.
John S. Thompson
Thomas J. White, M.D.

The names of the candidates are in the hands of the Delegates, and I would rule that they be referred to the proper reference committee.

President Crowe: You have heard the motion of Dr. Schaaf. Is there a second to that motion?

Secretary Greifinger: I second the motion.

President Crowe: Is there any discussion?

Dr. Albert F. Moriconi (Mercer County): Mr. President, The Eye, Ear, Nose and Throat Society of Central New Jersey at its meeting on May 4, 1951, unanimously passed a resolution requesting The Medical Society of New Jersey for representation by an eye, ear, nose and throat specialist on the Board of Trustees of the Medical-Surgical Plan of New Jersey. I'd like to have that added to his motion.

Dr Schaaf: That should be added as a separate motion.

President Crowe: We will pass on the first motion, Doctor; then if you would like to put another motion, it will be all right.

All in favor of Dr. Schaaf's motion let it be known by saying "Aye". Opposed? So ordered.

All right, Doctor.

Dr. Moriconi: The Eye, Ear, Nose and Throat Society of Central New Jersey at its meeting on May 4, 1951, unanimously passed a resolution requesting The Medical Society of New Jersey for representation by an eye, ear, nose and throat specialist on the Board of Trustees of the Medical-Surgical Plan of New Jersey.

I'd like to offer that in the form of a motion.

President Crowe: Is there a second to that motion?

Dr. George A. Corio (Mercer County): I will second that motion.

Dr. Schaaf: Mr. Chairman, that motion is out of order at this time. The procedure for nominations to the annual election to the Board of Trustees of the Medical-Surgical Plan is as follows: The Medical-Surgical plan submits the names of candidates for nomination to its Board to this body and it is approved.

Now, the speaker's motion is out of order here because the request for representation should be made to the Medical-Surgical Plan, which in turn would transmit the nomination to the House of Delegates or to the Board of Trustees of The Medical Society of New Jersey. The Medical-Surgical Plan nominates the board of Trustees. The House of Delegates approves nominations and then the Board elects. So that presently this motion is out of order.

Dr. Moriconi: Mr. Chairman, Dr. Schaaf recalls a letter was sent to him, to the Chairman of the Board of Trustees, and to the President of The Medical Society of New Jersey with that motion six months ago. No action was taken.

Last year a similar motion was offered from the floor. We were told we were out of order because it had not been submitted to the proper

reference committee. The gentleman submitting this proposal sat one hour and a half before that reference committee without being asked the reason for his presence. He finally got tired and left. That was last year at this time.

I'd like to know when it is possible to submit a motion which can be acted upon, if every time we get up here we are out of order.

DR. AARON H. HORLAND (Essex County): It is bad practice for any one group to be represented in any way in any of the governing bodies of this Society. We are all mindful of each other, and as exemplified in that wonderful speech by Dr. Johnsen, we consider each group. We are not sectional; we are The Medical Society of New Jersey. And I assure the gentleman, without knowing the problem, that nose and throat problems will be taken care of, and I don't think we should even discuss it. (Applause)

PRESIDENT CROWE: The Parliamentarian ruled that motion out of order anyway. Dr. Schaaf has a dual responsibility up here. As Parliamentarian he passes on all the motions.

DR. KRAKER (Essex County): I want to suggest, Mr. President, the Parliamentarian is merely passing on points of order. He has no particular relationship to the Delegates as a whole.

DR. VINCENT P. BUTLER: Mr. President, I have a resolution from the floor to introduce at the direction of the Delegate from Hudson County. This resolution concerns the proposals of New Jersey for a National Health and Medical Care Program. It reads as follows:

Resolved, by the House of Delegates of The Medical Society of New Jersey, in its annual meeting assembled on May 15, 1951, that this House of Delegates reaffirm the action of the Board of Trustees in formulating and offering to the public on January 30, 1950, a statement of twelve Proposals for a National Health and Medical Care Program; and

Be It Further Resolved, that because no better program whatever (in fact no positive program) has been proposed by the A.M.A., that the Delegates representing The Medical Society of New Jersey be authorized and directed to reintroduce the proposed National Health and Medical Care Program of The Medical Society of New Jersey to the House of Delegates of the A.M.A., in June 1951, and use all their energies to promote its adoption.

DR. BUTLER: I move that this be referred to the proper reference committee.

PRESIDENT CROWE: You have heard Dr. Butler's motion. Is there a second to that motion?

DR. F. CLYDE BOWERS (Morris County): I second it.

PRESIDENT CROWE: All in favor of the motion let it be known by saying "Aye". Contrary? It will be referred to the proper reference committee.

DR. JOSEPH P. DONNELLY (Hudson County): Mr. President, Members of the House of Delegates: This is a resolution somewhat similar to Dr. Butler's.

I enjoyed Dr. Johnsen's remarks very much here this morning and especially what we heard of the growth of the Medical-Surgical Plan of New Jersey which now has 500,000 members and I am sure there are 500,000 other people who are covered by private insurance plans. However, gentlemen, we should not forget that there are still three million people in New Jersey who are not covered by any plan.

I therefore read the following resolution:

Whereas, at the last annual meeting of the American Medical Association, we requested the A.M.A. to sponsor a detailed Health and Medical Care Program which had been proposed by The Medical Society of New Jersey, and

Whereas, the House of Delegates of the A.M.A. recognized the need of a definite National Health Program and established a special committee of the Board of Trustees of the A.M.A. to augment and clarify the Ten-Point Statement of Principles previously adopted by the A.M.A., and

Whereas, the committee was instructed to study the New Jersey Plan and other practical suggestions for the formulation of a detailed medical care program to be sponsored by the American Medical Association, and the committee to report its recommendations to the House of Delegates of the A.M.A.;

Be It Resolved, that the House of Delegates of The Medical Society of New Jersey reaffirm its support of the Twelve-Point Program of Medical Care sponsored and approved by this Society in May 1950;

Be It Further Resolved, that the House of Delegates instruct our A.M.A. Delegates to determine what progress, if any, has been made by the committee of the American Medical Association in formulating a detailed, specific, practical Medical Care Program for all the people in the United States, and to report their findings to the Board of Trustees of The Medical Society of New Jersey after the Annual Meeting of the A.M.A.

DR. DONNELLY: I wish that this be referred to the proper reference committee.

PRESIDENT CROWE: You have heard Dr. Donnelly's motion. Is there a second to Dr. Donnelly's motion?

DR. HORLAND (Essex County): I second that.

PRESIDENT CROWE: You have heard the motion. All in favor let it be known by saying "Aye". Opposed? So ordered.

The Board of Trustees referred a communication concerning the Association of American

Physicians and Surgeons, Incorporated to the House of Delegates for action without any recommendation. I will entertain a motion that this be referred to the proper reference committee.

ASSOCIATION OF AMERICAN PHYSICIANS AND SURGEONS, INC.†

360 North Michigan Avenue, Chicago 1, Illinois

January 28, 1951

Dear Doctor Crowe:

We are imbued with the concept of individual initiative and personal freedom. Our freedom is challenged. Certain forces are working for the control of medical schools, for the socialization of medicine and for the destruction of our American way of life, by cunningly confusing our concept of freedom and replacing it with their concept of security.

Your are fighting this purpose as an officer of The Medical Society of New Jersey. I am attempting to do my part as an officer of a national medical organization, the Association of American Physicians and Surgeons. It is my desire to acquaint you with the principles and objectives of this organization—AAPS.

AAPS is a national medical association, organized in 1943 by a group of A.M.A. members, to represent and protect the interests of physicians in medical economics, public relations and legislation—the three fronts where socialists are waging battle to regiment physicians and their patients.

AAPS does not compete with, nor oppose any other ethical group.

Through its publicity and public relations program of developing good relations between the individual doctor and his individual patient, and then and only then, publicizing these good relations for public education and enlightenment; through its essay contest for junior and senior high school students on the subject "why the private practice of medicine furnishes this country with the finest medical care" to inform all youngsters and their parents of a complete cross section of peoples of the value of private practice and the evils of compulsion in medical care; and through its legislative service of fighting each piece of socialist legislation by employment of the modern technic of developing grass roots support for good legislation and opposition to bad legislation, the Association hopes to convince the American people and the Congress of the vital importance of preserving quality medical care for the American people.

If these approaches should fail and only as a last resort, AAPS proposes that physicians refuse to participate in any schemes for the distribution of their services inimical to the public interest—such schemes as the Murray-Wagner-Dingell bill, or any other socialized medicine proposal.

Non-participation is *not* a proposed strike against the sick. Our members would continue to serve their patients as private patients, exactly as they do now.

Since government controlled medical care inevitably and historically results in a deterioration of medical service, and since the ethical physician holds the welfare of his patient to be paramount, AAPS believes that the vast majority of American physicians (85 to 90 per cent) would refuse to participate because of their duty to their patients, to themselves, to their profession, and to their country.

In the final analysis, AAPS becomes medicine's last line of defense, but most potent weapon with which to preserve a free, unhampered system of medical care.

Another important objective of the Association is to educate all physicians and their fellow citizens in freedom. Recognizing that socialized medicine is only one phase of the scheme to socialize the nation's entire economy, in meeting in 1949, the Delegates voted unanimously to add the "Freedom Program" to its list of objectives.

Membership in the Association is the voluntary decision of each physician. The cost is $10 per year. In joining AAPS, a physician assumes the same responsibilities and obligations that he assumes when he joins his county medical society. He is free to resign at any time.

Through our *Legislative Bulletins* to a selected list of key medical leaders throughout the nation (about 400) we employ the modern technic of stimulating and developing grass roots influencing of legislation. To persuade the law-makers, you must exhort the people back home to raise their voices to their Congressmen. We are the only national medical group performing this type of service. To us, it is an essential service because by fighting legislation each step of the way, we are spoiling the strategy of the Fabian socialists of this country to attain their socialist program by piece-meal. John T. Flynn's book *The Road Ahead* reveals that failure to defeat the British Fabian socialists in the small skirmishes brought about England's downfall. We are endeavoring to avoid the mistake of "holding our fire" for the big emergency, because enough socialist victories of these small skirmishes will achieve a complete socialistic economy without ever creating the "big emergency".

Of course, organizing physicians for non-participation is vitally important. Though we propose to use non-participation only as a last resort and when it will be in the public interest to use it, it is essential that American medicine be fortified with this modern, absolute weapon so that it can hold off the socializers while a long range program of medical public relations is being used to earn the supporting sentiment of the American people and Congress.

With non-participation developed to a strength necessary for successful employment of it, physicians can attack confidently the problems of public relations with no fear of a rear guard action of over-night regimentation of physicians and their patients.

British doctors demonstrated why American physicians must organize for non-participation *now*. In England they tried to do it in a year and failed. Perhaps AAPS will never attain a majority of eligible physicians until after socialized medicine becomes law — and doctors throughout the nation are aroused to the urgency for immediate action. Despite this possibility, for six years AAPS has

† For the sake of brevity, this letter, which in the original ran to 2400 words, has been somewhat condensed.

been developing a strong nucleus for non-participation with thousands of members from every state, indoctrinated with, and convinced of, the ethical and moral righteousness of non-participation—an act to be taken only in the interest of the public. If the emergency of socialization comes, AAPS will offer American doctors a rallying point around which they can unite to refuse to do that which is wrong.

A Purdue University poll of 10,000 high school students revealed the startling fact that 80 per cent of these youngsters believed the government should adopt some form of controlled medical care. We must reach these youngsters with the true and commendable story of the private practice of medicine because failing to do this, in a few years the majority of young voters will be advocates of socialized medicine. So far, our contest is the best vehicle for telling medicine's story to students, their parents and teachers.

Although the Association's "Freedom Program" was adopted only in 1949, already we have initiated chain readership on a national basis of two of the outstanding Freedom books of the age: John T. Flynn's book *The Road Ahead* and Melchior Palyi's book *Compulsory Medical Care and the Welfare State.* Eventually, we hope to develop a technic which will stimulate medical societies to take the leadership at the community level to interest all groups in Freedom. And we hope to be able to supply AAPS membership and societies with references, booklets and pamphlets emphasizing and clarifying the Freedom stand.

We believe that an alerted and informed profession will defeat the socialist trend. To keep our members informed we send to each a monthly *News-Letter,* covering current trends and threats.

The principles and objectives of AAPS have been endorsed by sixteen state medical societies and by over 300 county medical societies. While we are carrying out the various programs outlined above we have not lost sight of our greatest obligation to organized medicine—to enlist the majority of American physicians in non-participation so that (if the time ever comes) medicine can present a united front and prevent enslavement.

Endorsement of AAPS by a county or state society does not obligate any individual physician. Membership in AAPS is voluntary. State or county endorsement does, however, make it easier to enlist the membership-at-large. We now have many members in New Jersey but we are desirous of increasing that number and of securing state endorsement. Dr. Watson B. Morris is a delegate to AAPS. As a further thought on non-participation, I refer you to January 1951 *Medical Economics.*

How may we get before New Jersey county societies or state society to make a formal presentation? We will furnish qualified speakers at no cost to the societies.

Sincerely yours,

LAWRENCE SHINABERY, M.D.

DR. KAUFMAN (Essex County): I move that this communication be referred to the proper Reference Committee.

DR. ULMER (Gloucester County): I second the motion.

PRESIDENT CROWE: You have heard the motion. All in favor let it be known by saying "Aye". Opposed? So ordered.

DR. SPENCER T. SNEDECOR (Bergen County): Mr. President, I have a resolution to introduce, the purpose of which is to clarify the status of exchange internships from graduates of foreign schools, for those who are working in our hospitals. Here is the text:

WHEREAS, The United States of America is proclaiming the philosophy of the brotherhood of man and is prosecuting a policy of education in its effort to secure world peace; and

WHEREAS, the art and science of medicine knows no national boundaries;

NOW THEREFORE BE IT RESOLVED, that this Society approves the principle of Exchange Students in the interest of better understanding between men and approves of hospitals in this state accepting for intern training citizens of foreign countries, who are recent graduates of acceptable foreign schools; and that the medical staffs of our hospitals be urged to teach not only the best in American medicine, but also, by example and precept, the best in American democracy, with the hope that the Exchange Student will be so saturated with democracy as to be effective in sowing the seeds of democratic principles upon his return home.

DR. SNEDECOR: I move the adoption of this resolution and further move that our Delegates to the A.M.A. be instructed to introduce it at the annual meeting of the American Medical Association.

PRESIDENT CROWE: You have heard Dr. Snedecor's motion. Is there a second?

DR. KALB (Essex County): I second it.

PRESIDENT CROWE: Regularly moved and seconded. All in favor of the motion let it be known by saying "Aye". Opposed? So ordered.

I will call on the Chairman of the Board of Trustees to read a resolution from the Board to the House of Delegates.

(Dr. Allman then read "Amendment to Paragraph (a) Section 5, Chapter 6, of the By-Laws relating to the Board of Trustees".)

It is proposed to amend Paragraph (a), Section 5, Chapter 6, of the By-Laws relating to the Board of Trustees, by adding the following after "Nine members shall constitute a quorum".

The Board of Trustees at the organization meeting may appoint an Executive Committee to consist of the chairman of the Board of Trustees, the immediate Past-President, the President, the President-Elect and one elected Trustee to be selected by the chairman of the Board. The Executive Committee shall meet at the call of the chairman of the

Board at the time and place designated by him. Its function shall be thoroughly to consider all matters to come before the Board of Trustees for its consideration and action. It shall have authority to take final action on all matters referred to it by the Board of Trustees, with power. In unusual circumstances requiring emergency action, when time does not permit the five day advance notice required, for meetings of the Board of Trustees, the Executive Committee may act for the Board of Trustees securing concurrence in the proposed action from a majority of the Board of Trustees by telephone (the whole Board to be canvassed) confirmed by telegram or letter, any action thus taken to be ratified by formal action of the Board of Trustees at its next subsequent regular or special meeting. Four members of the Executive Committee shall constitute a quorum.

DR. ALLMAN: Mr. President, I move this be referred to the proper reference committee.

Under our present rather horse and buggy set-up in the Constitution and By-Laws, it requires a written notice of five days before calling a special meeting of the Board of Trustees. Matters have and will continually, I'm sure, come up which might require rapid definitive decision. It has happened many times regarding legislation where a certain bill was suddenly introduced, there was no time to get the Board of Trustees together under the five-day provision, and there was no provision for any authority whereby we could go on record to favor or oppose such a bill.

The same thing occurred during the past summer, when the Korean situation broke out and The Medical Society of New Jersey was hurriedly called upon to do something about the physician resources. We were unable to get a quorum immediately of the Board of Trustees and it was necessary for the officers to take certain action which they could not have confirmed or ratified until the next meeting of the Board of Trustees.

This will give an opportunity for a group of men to be known as the Executive Committee, which does not necessarily have to be appointed but may be appointed at the discretion of the Chairman of the Board; such a committee may be appointed and then they will have authority to act; providing, of course, after their action has been taken they make contact, by telephone or by telegram, with every member of the Board of Trustees, get his vote on the matter by telephone or telegraph and then later have that confirmed in writing and then again still later have the whole matter confirmed by the Board of Trustees. It is simply safeguarding, in the event of any emergency, that we will be prepared to act.

PRESIDENT CROWE: You have heard the motion of the Chairman of the Board of Trustees. Is there a second to that motion?

DR. JOSEPH G. COLEMAN (Sussex County): I will second it.

PRESIDENT CROWE: All in favor of the motion let it be known by saying "Aye". Opposed? So ordered. The Secretary will now read certain proposed Constitutional amendments.

SECRETARY GREIFINGER:

ARTICLE V—HOUSE OF DELEGATES

Delete the phrase "and shall hear appeals from the decisions of the Judicial Council,".

The amended Article will then read: "The House of Delegates shall be the legislative body, and shall consist of the Fellows, Officers and Delegates."

ARTICLE VII—COUNCILORS

Amend this article to read as follows: "The Councilors collectively shall comprise the Judicial Council which shall be the judicial body of the Society. The House of Delegates shall organize five (5) councilor districts within the state. It shall elect one (1) councilor to represent each district from among the membership of each such district."

ARTICLE IX—OFFICERS

Amend Section 2—"Election" (first line) now reading: "The Officers shall be elected by this Society . . . ." to read: "The Officers shall be elected by the House of Delegates. . . ."

SECRETARY GREIFINGER: I move that this be referred to the proper reference committee.

DR. SCHAAF: I will second the motion.

PRESIDENT CROWE: All in favor of the motion let it be known by saying "Aye". Opposed? So ordered.

I want to remind you that this session of the House is the only one at which new business may be introduced. Is there any other new business to come before the House?

DR. DONNELLY (Hudson County): Mr. President, Members of the House of Delegates: I have been asked by the Hudson County delegation to introduce this resolution concerning annual registration.

Whereas, a bill for annual registration of physicians and for the collection of an annual registration fee was introduced in the last session of the New Jersey Legislature; and

Whereas, such bills are discriminatory against physicians as they impose a tax on all doctors who are practicing their profession and that they limit the term of a license to practice to one year; and

Whereas, although the House of Delegates of The Medical Society of New Jersey had previously disapproved this type of legislation at an annual meeting, the Board of Trustees of The Medical Society in a recent meeting voted *not* to disapprove of a bill for annual registration which was introduced in the recent session of the Legislature; and then the Board of Trustees failed to report their action in the minutes of the meeting as published in the JOURNAL;

Therefore Be It Resolved, that the House of Delegates go on record at this meeting against all legislation for annual registration of physicians and that the Board of Trustees be directed to disapprove all legislation for annual registration unless at some future time they receive different instructions from the House of Delegates; and

Be It Further Resolved, that a copy of this resolution be sent to each member of the Board of Medical Examiners who is a member of this Society.

DR. DONNELLY: Mr. Chairman, I move that this resolution be referred to the proper reference committee.

DR. NICHOLAS M. ALTER (Hudson County): I second the motion.

PRESIDENT CROWE: All in favor of the motion let it be known by saying "Aye". Opposed? (There were several Noes.) The motion is carried.

DR. ELMER P. WEIGEL (Union County): In referring these various matters to the reference committees you have failed to state to which reference committee you are referring them. How are we going to be able to listen to their deliberations unless you designate which committee they are referred to? To which committee are you referring this last resolution?

PRESIDENT CROWE: It will come under Reference Committee "D". Dr. Clarke is Chairman.

DR. BUTLER: Mr. Chairman, may I suggest that the resolution just made be referred to Reference Committee "C" because the Medical-Surgical Plan is also going to have their report referred to that Committee?

PRESIDENT CROWE: It will be referred to that Committee.

DR. COSTELLO: To what committee will the resolutions in reference to the A.M.A. Delegates be referred?

PRESIDENT CROWE: We will refer that to Committee "D".

DR. MORICONI (Mercer County): Are nominations open from the floor?

PRESIDENT CROWE: The election is at twelve o'clock tomorrow, Doctor.

DR. MORICONI: I am speaking about the report of the Board of Trustees to the House of Delegates on nominations for election to the Board of Trustees of the Medical-Surgical Plan of New Jersey that was submitted today at this meeting and acted upon for reference to the proper committee.

PRESIDENT CROWE: That has already been referred to the proper committee for study.

DR. MORICONI: That may be referred for study, but, nominations from the floor are always open to any committee and to any office in this House of Delegates.

PRESIDENT CROWE: I think you will find from your Constitution and By-Laws that the election of officers takes place tomorrow at twelve noon in the House of Delegates. That is the only business that we will consider. Is that right, Dr. Schaaf?

DR. SCHAAF: I would so rule.

DR. MORICONI: I don't quite agree with that, because I have been to many, many meetings in my lifetime and I have never been told that I could not propose any new business from the floor.

PRESIDENT CROWE: Doctor, I wish that I could change the Constitution and By-Laws to suit you, but I will have to abide by the Parliamentarian's decision.

DR. MORICONI: I want you gentlemen to understand that we are having ourselves steamrollered into something whether we like it or not. Every Delegate on this floor should be permitted to speak on any subject pertinent to the good of the Society. Anything which closes off or stops us from speaking from the floor is undemocratic.

DR. BUTLER: I move to sustain the chair.

DR. HORLAND (Essex County): Mr. Chairman, I second the motion. I do not feel that we are being railroaded. I have also attended many meetings, and there is a rule of business and a rule of order. New officers come under election of officers, which will be tomorrow. We are under new business, but yours comes under new business subtitled new officers or election of officers, and you are out of order.

DR. MORICONI: The only thing I am trying to do is find out the proper time I can present a name for nomination on the Board of Trustees of the Medical-Surgical group. I don't care how we do it. I may be entirely out of order, but I don't see how we can possibly get in.

PRESIDENT CROWE: The Parliamentarian has ruled it can be done tomorrow at the House of Delegates election.

(There were several Noes.)

DR. MORICONI: I was told last year I was supposed to bring it up at the first meeting of our Delegates under new business. Now the Parliamentarian rules we've got to do it on another day.

PRESIDENT CROWE: Any more discussion on this motion?

DR. ALBERT B. KUMP (Cumberland County): Dr. Crowe, I think to clarify the whole matter it would be well to have some one go over again the method by which trustees to the Medical-Surgical Plan are nominated and elected. There seems to be some confusion as to whether it is done by the House of Dele-

gates or with the approval of the House of Delegates.

President Crowe: Dr. Borsher is director of the Medical Service Administration. He will explain it.

Dr. Borsher: The question of representation of specialty groups on the Board of Trustees of the Medical-Surgical Plan has been presented, on frequent occasions, both to the attention of the Plan, to the Reference Committee and to the House of Delegates.

I think it would be well if the resolution which had been ruled out of order actually were referred to the reference committee for discussion and the Delegate who has proposed that motion be present and enter into the discussion before the reference committee.

President Crowe: Dr. Kump would like to know the method of election to the Board of Trustees.

Dr. Kalb (Essex County): Do you have a copy of the By-Laws of the Medical Surgical Plan?

Dr. Borsher: We will have a copy here.

Dr. Kalb: Doesn't it show that the Medical-Surgical Plan nominates the officers and requests us to confirm them?

Dr. Borsher: That is exactly so. The Board of Trustees of the Medical-Surgical Plan submits to the House of Delegates for approval the nominations for election to the Board of Trustees, which takes place at the annual meeting of the Board of Trustees of the Medical-Surgical Plan. If during the year prior to the meeting of the House of Delegates a vacancy occurs, then the nominee for election to the Board of Trustees, in the interim between the meetings of the House of Delegates, is referred to the Board of Trustees of the State Society for approval. At the annual meeting of the House of Delegates of the State Society, there is a requirement in the By-Laws that the Trustees for the following year must be submitted for approval.

Dr. Schaaf: We have bogged down on matter of procedure. The ruling on the nomination, as it was proposed to be made was out of order. But there is a different procedure that would be quite in order.

If the gentleman who has urged the appointment of an eye and ear specialist to the Board would offer a motion that this body requests the Medical-Surgical Plan to consider for election to its membership a designated physician, that would come to us as a recommendation from the House of Delegates and I assure you it would receive serious consideration.

But the procedure is as I outlined it. Our Board submits to the House of Delegates or the Board of Trustees nominations, which, when approved, are returned to the Board and then they are elected.

Now, could I resolve the difficulty by suggesting that the gentleman who has spoken nominate somebody, suggest the nomination to the Board of Trustees of the Medical-Surgical Plan by this body, and I assure you it will be given serious consideration if and when a vacancy arises.

Customarily what is done when a vacancy turns up is for us to ask an area which is not represented to name a doctor for membership on the Board.

When Dr. Lewis died the Board asked for a nominee from the Camden County area—I think that is the Fourth District—and a nominee was suggested. He was elected but found it impossible to serve and resigned. Since that time we have asked the Third District to suggest a nominee to replace the one who resigned. As yet we haven't received a suggestion from the Third District, but when we do we will be very happy to name him.

Actually we are talking about procedure and you've got to be technically correct. But I would like to assure this House of Delegates that anything which they offer to the Medical-Surgical as a suggestion or a recommendation will receive serious consideration. However, as a Board we are opposed to individual representation of specialists or others.

For example, we have had urgent insistence that a neurologist be put on the Board; another group wants a urologist on the Board. Another group wants orthopedic surgeons on the Board. After all, we as a Board are trying to represent the whole profession. Perhaps Dr. Moriconi was one who conferred with the officers of the Medical-Surgical Plan in an effort to evolve an acceptable schedule of benefits for the eye and ear group. We have held eight or ten conferences and at least sixty doctors representing different specialties have participated in these conferences. We have had several with the anesthesia group and we believe we have effected an accommodation between their views and ours which will lead to the reparticipation by the anesthesia group in the Medical-Surgical Plan.

We have held consultations with the eye, ear, nose and throat specialists and we have modified our schedule of benefits to conform more nearly to the ideas of that group.

We have held consultations with traumatic surgeons; we have held consultations with the orthopedists; with the urologists; with internists and pediatricians. Presently we have completed a tentative revision of the schedule of benefits which is acceptable to every group ex-

cept internal medicine and pediatrics which is still under consideration.

If the gentleman will offer a specific name from any area of New Jersey, our Board will be more than happy to consider him for the next vacancy—not because he is an eye and ear specialist, but because we hope he will represent the whole profession. (Applause)

Dr. Moriconi: That's all I've been trying to do.

President Crowe: There is still before the House a motion to sustain the action of the Chair. Do you wish to discuss that motion?

Dr. Moriconi: I am opposed to it and I think we should have the opportunity of suggesting names or nominating men for those committees.

President Crowe: Doctor, I think possibly Dr. Schaaf explained to you a method by which you can do that. If you will just let me have a vote on this particular motion.

All in favor of this motion let it be known by saying "Aye". Opposed? (There were several Noes.) The Ayes have it.

Dr. Moriconi: For the past year and a half we have been making an attempt to get a representation on the Board of Trustees of the Medical-Surgical Plan. We are specialists in our particular field. We probably perform a large proportion, maybe not the largest but a large proportion of the surgery on subscribers to the Medical-Surgical Plan. Probably the only other group that has more are the obstetricians and they have done very well.

We were told a few minutes ago that this specialist representation was not the proper method of getting a broad way of applying the benefits to the people of New Jersey. Nevertheless, we find that eight out of the twelve gentlemen who have been nominated for election by the Board of Trustees are specialists of one kind or another. Eight out of twelve. Not a single one of them is an eye, ear, nose and throat specialist.

The names of the Trustees prove that specialists are being advanced to places on this Board. Since we eye, ear, nose and throat specialists represent a very large proportion of the profession, we should get some protection for our group.

Eight of the twelve men who are already nominated for the Board of Trustees of the Medical-Surgical Plan are specialists. The eye, ear, nose and throat group should have a similar representation. Therefore I would like to offer the name of a very eminent ear, nose and throat specialist of Newark, New Jersey, Charles W. Barkhorn, for submission to the House of Delegates to recommend to the Board of Trustees of the Medical-Surgical Plan for representation on their Board.

President Crowe: You move, Doctor, that it be referred to the proper reference committee?

Dr. Corio (Mercer County): I will second that.

Dr. Hollinshed (Camden County): I would like to move that this gentleman present these remarks to the reference committee.

Dr. Corio: You have another motion on the floor, Mr. President.

President Crowe: The Parliamentarian rules that was an amendment to the original motion.

Dr. Hollinshed: I should like to offer that as an amendment.

Dr. Burritt: It was the suggestion of Dr. Schaaf that the proposals for nominations be offered in the form of a resolution so that they could be presented to a reference committee. If that be true, does not then Dr. Hollinshed consider that his motion is out of order? If it is presented as a resolution it certainly is dignified enough to be referred to the reference committee.

President Crowe: You have heard the amendment to the motion. All in favor of the amendment let it be known by saying "Aye". Opposed? (There were several Noes.)

Now we will have the original motion.

President Crowe: What it actually says is that Dr. Barkhorn's name, offered for nomination to the Medical-Surgical Plan, shall be referred to the proper reference committee for study. Is that right?

Dr. Butler: Does that imply with or without a recommendation by the House of Delegates? It is merely the submission of a name without a recommendation?

Dr. Moriconi: In my original request I said we passed a resolution requesting The Medical Society of New Jersey for representation of an eye, ear, nose and throat specialist on the Board of Trustees of the Medical-Surgical Plan of New Jersey. That was my original request.

President Crowe: All in favor of the motion let it be known by saying "Aye". Opposed? (There were several Noes.)

All in favor of the motion please rise.

President Crowe: The motion is carried. (Applause)

Dr. Schaaf: I am not speaking as Parliamentarian or a member of the House of Delegates; I am speaking as President of the Medical-Surgical Plan and I am asking this body to express itself for the guidance of the

Board of Trustees of the Medical-Surgical Plan in a matter of policy.

It has been the policy not to have group representation on the Board but to have members on the Board who would think and act for the profession as a whole.

Now, how did this Board come into being? The original Board was Dr. Sprague, Dr. Lance, Dr. Costello, Dr. Cosgrove, Dr. Comando and Mr. Thompson. I joined the Board a little later. Not one of those members was named to the Board because he was a surgeon or because he was an internist. Dr. Sprague was named because he had a great interest in the distribution of medical care. In 1937 when the Toronto Plan was developed he went to Toronto and spent a long time with the head of that Plan. He came back and went to see Dr. Carrington and said: the pressing need in this state is for a voluntary sickness insurance scheme. Will you try to set it up? He appointed a committee headed by Dr. Hilton Read and they reported favorably on the need and then they appointed a study committee which was headed by Dr. Sprague. When the organization of the Plan came up, Dr. Lance was named not because he was a surgeon but because he had a great interest in the distribution of medical care.

Dr. Cosgrove was not named because he was an obstetrician; he was named because he was a distinguished leader in organized medicine in this state. He was a sound thinker and he was sympathetic to the idea of developing a voluntary sickness and insurance program.

Dr. Comando at the time of this organization was president of the Essex County Medical Society. He wasn't brought into the Plan because he was a surgeon; he was brought in because he held a position of eminence in the profession and of influence with the largest county which it was necessary for the Board to secure cooperation from in order to put the thing on the map at all.

I came into it having been immediate past President of Essex County and still having a little weight in the councils of the Society and between Dr. Comando and myself and our successors, Dr. Weber and Dr. Cox, we finally succeeded in getting Essex to be the first county to adopt the principles set forth in the proposal to establish a voluntary sickness insurance program.

Now, certainly I was not selected because I am a surgeon. I am not serving on the Board today because I am a surgeon. Neither is any other member of this Board. The principle of representation by fractions is bad. It will defeat the purpose of the Plan. Every member of this Board has taken a broad view. We have sought good medical men on the Board and every man who has been on the Board I assure you thinks for the profession as a whole. I have yet to hear one of them voice an idea which would be beneficial just to his particular group.

Dr. Cosgrove was the member who first suggested that we ask the obstetricians to take a reduced payment for obstetrical services in the individual room policy. It was the only way we could possibly cover maternity benefits in an individual policy. Dr. Cosgrove was not acting in the financial interests of the obstetricians. He was asking the obstetricians of the state to take diminished fees. The obstetricians generously cooperated in this effort and we are hopeful that we will be able to increase the benefits under the direct enrollment.

I would like to offer a motion, Mr. Chairman, that the House declare it to be its policy *not* to appoint any member of the Board of the Medical-Surgical Plan by reason of representation of any special group.

SECRETARY GREIFINGER: I second that motion.

PRESIDENT CROWE: You have heard Dr. Schaaf's motion. It has been seconded by Dr. Greifinger of Essex. Any discussion on this motion? All in favor of the motion let it be known by saying "Aye". Opposed? So ordered.

Is there any other new business? Hearing none, I publicly thank Dr. William Hersohn, the Chairman of the Scientific Exhibits Committee, for the fine piece of work that he has done.

I urge all of you to visit the technical exhibits and the scientific exhibits.

The House of Delegates will now recess until the election at twelve o'clock tomorrow.

(The meeting was then recessed at 11:32 a. m.)

Wednesday Noon Session—May 16, 1951

The meeting convened at 12:35 p. m., President Crowe presiding.

PRESIDENT CROWE: Will the meeting please come to order?

At this time it is my privilege to present the distinguished Delegate for New York State, Dr. Edward Cunniffe, the Chairman of the Judicial Council of the American Medical Association. Dr. Cunniffe. (Applause)

DR. EDWARD R. CUNNIFFE: Mr. President

and Members of The Medical Society of the State of New Jersey: It is a great pleasure for me to come down and greet you, an honored body, and bring to you the best wishes of the New York State Medical Society for a happy and successful meeting.

You are an honored body. Each Delegate is honored by his county in being assigned the task of helping to form the policy of your Society. That carries with it great responsibilities, but it gives the highest privilege any doctor can get: to take part in conducting the activities of an organization whose members devote their lives for the care and welfare of the people of New Jersey.

I know this opportunity is recognized by you all and I know that you will do your work according to the traditions of The Medical Society of the State of New Jersey in the past. I know that when this meeting has finished its labors that you can all say, as you did when you entered the medical profession, that you have done your work in such a manner as to uphold its dignity, exalt its standards, and extend its field of usefulness. When you do this for medicine, you do a great work. Thank you very much. (Applause)

PRESIDENT CROWE: Thank you very much, Dr. Cunniffe.

Mr. Secretary, do we have a quorum?

SECRETARY GREIFINGER: Mr. President, there is a quorum present.

PRESIDENT CROWE: The only order of business now is the annual election. The Constitution and By-Laws state that the immediate Past-President shall be Chairman of the Nominating Committee. In case he is not able to attend, the Fellows designate the Chairman of the Nominating Committee. The Fellows met and have designated Dr. Royal A. Schaaf as the Chairman of the Nominating Committee.

DR. SCHAAF: Dr. Crowe, Members of the House of Delegates: The Nominating Committee met on May 14, 1951. Nineteen of the twenty-one counties were represented. Dr. Schaaf served as Chairman of the meeting and Dr. Greifinger as Secretary.

There is no contest and no discussion of the President. The President-Elect is automatically inducted as President and there is no discussion of his nomination at this meeting.

(Dr. Schaaf then read the Report of the Nominating Committee.)

NOMINATIONS

Office	*Term*	*From*	*To*	*Nominee*
President-Elect	1 yr.	May 1951	May 1952	Harrold A. Murray, M.D., Newark
First Vice-President	1 yr.	May 1951	May 1952	Henry B. Decker, M.D., Camden
Second Vice-President	1 yr.	May 1951	May 1952	Elton W. Lance, M.D., Rahway
Secretary	1 yr.	May 1951	May 1952	Marcus H. Greifinger, M.D., Newark
Treasurer	1 yr.	May 1951	May 1952	George J. Young, M.D., Morristown
Trustees:				
Second District	3 yrs.	May 1951	May 1954	J. Lawrence Evans, M.D., Woodcliff
Third District	3 yrs.	May 1951	May 1954	L. Samuel Sica, M.D., Trenton
Fourth District	3 yrs.	May 1951	May 1954	Reuben L. Sharp, M.D., Camden
Fifth District	3 yrs.	May 1951	May 1954	David W. Green, M.D., Salem
Councilors:				
First District	3 yrs.	May 1951	May 1954	Francis C. Weber, M.D., Newark
Third District	1 yr.	May 1951	May 1952	Jacob J. Mann, M.D., Perth Amboy (to fill unexpired term of Dr. Barclay S. Fuhrmann, resigned)
Fourth District	3 yrs.	May 1951	May 1954	Daniel F. Featherston, M.D., Asbury P.
A.M.A. Delegates and Alternates:				
Delegate	2 yrs.	Jan. 1952	Dec. 1953	Joseph F. Londrigan, M.D., Hoboken
Alternate	2 yrs.	Jan. 1952	Dec. 1953	Albert B. Kump, M.D., Bridgeton
Delegate	2 yrs.	Jan. 1952	Dec. 1953	William F. Costello, M.D., Dover
Alternate	2 yrs.	Jan. 1952	Dec. 1953	Walter F. Phelan, M.D., Elizabeth
Delegate	1½ yrs.	May 1951	Dec. 1952	L. Samuel Sica, M.D., Trenton (to fill unexpired term of Dr. James F. Norton, Deceased)
Alternate	1½ yrs.	May 1951	Dec. 1952	Aldrich C. Crowe, M.D., Ocean City (to fill unexpired term of Dr. Frank W. Konzelmann, resigned)
Delegates and Alternates to Other States:				
New York—Delegate	1 yr.	May 1951	May 1952	Aldrich C. Crowe, M.D., Ocean City
Alternate	1 yr.	May 1951	May 1952	D. Ward Scanlan, M.D., Atlantic City
Connecticut—Delegate	1 yr.	May 1951	May 1952	C. Byron Blaisdell, M.D., Asbury Park
Alternate	1 yr.	May 1951	May 1952	Blackwell Sawyer, M.D., Toms River
Standing Committees:				
Publication	3 yrs.	May 1951	May 1954	J. Lawrence Evans, Jr., M.D., Leonia
Scientific Work:				
Third District	5 yrs.	May 1951	May 1956	Patrick H. Corrigan, M.D., Trenton
Second District	4 yrs.	May 1951	May 1955	George Ginsberg, M.D., Hoboken (to fill unexpired term of Dr. William W. Mayer, resigned)

Dr. Schaaf: Mr. Chairman, I move that the Report of the Nominating Committee be received.

(The motion was seconded.)

President Crowe: You have heard the motion. All in favor let it be known by saying "Aye". Opposed? So ordered.

(Upon motions duly made, seconded and carried, the nominees were elected to the various offices, and the Secretary was instructed to cast a ballot for each nominee. There were no nominations from the floor.)

President Crowe: That closes this session. We will recess until two o'clock.

(The meeting was then recessed at 12:55 p. m.)

Wednesday Afternoon Session—May 16, 1951

The meeting convened at 2:15 p. m., President Crowe presiding.

President Crowe: I will designate President-Elect Harrold Murray Secretary pro tempore. Do we have a quorum present?

Dr. Murray: We have, yes.

President Crowe: First item on the agenda is the report of Reference Committee "A". Before Dr. Timberlake starts his report, I call attention to the fact that we have furnished all Delegates with mimeographed copies of the reports so that you can follow them more closely. This will expedite the work of the House.

Dr. Timberlake: Mr. President, Members of the House of Delegates, here is our report:

REPORT OF REFERENCE COMMITTEE "A"

The report of the President was carefully considered by the Reference Committee. The Committee unanimously approve the report in its entirety and commend the President for the scope and efficiency of his activities throughout the year. His has been an especially challenging year which must certainly have placed a great tax upon his time and energies. Every demand of duty was well met, however, and his record of achievement is such as to merit the approbation and admiration of all the members of the Medical Society. Two innovations in administrative procedures especially commend themselves to the Committee: the holding of an organizational dinner meeting with the chairman of the Welfare Committee and the members of the four subcommittees during the period of the annual meeting; and the holding of a meeting in the early summer with the same committee groups to outline and begin at an early date the work of the year. In consequence of these two measures, the activities and accomplishments of the year were multiplied and facilitated.

The work of the Board of Trustees was made much heavier because of the national programs in which the Medical Society had active participation. The report of the Board fully reflects the efficient way in which the affairs of the Society have been conducted, and the Committee heartily approves both its report and its accomplishments.

The Secretary's office carries a great value of routine work, much of which is but lightly adverted to by the general membership. The report of the Secretary summarizes briefly the nature and scope of this work, and the Committee unreservedly accepts this report and applauds the Secretary for a job well done.

This year has witnessed a great expansion on the part of the Judicial Council. Under its skillful guidance, the necessary machinery for processing and adjudicating complaints of all kinds has been set up. Procedures are now laid down for the establishment and operation of county judicial committees, as well as the district and state councils. The report is complete and enlightening, and we approve it enthusiastically. Moreover we wish to congratulate Dr. Butler and the other members of the Council for their generous and highly constructive efforts.

The Committee accepts with appreciation the report of the Executive Officer for the clear and encouraging picture it affords of the many efficient activities of the Executive Officer and all of the members of the staff.

The Committee recommends that the House of Delegates approve the reports of the President, Board of Trustees, Secretary, Judicial Council, and Executive Officer.

Baxter H. Timberlake, M.D., Chairman,
Reference Committee "A"

Dr. Timberlake: Mr. President, I move the adoption of this report.

President Crowe: Thank you very much, Mr. Chairman. I appreciate that. Is there a second to that motion?

(The motion was seconded and passed.)

President Crowe: Next item is Reference Committee "B".

(Dr. Schaaf then read the following Report of Reference Committee "B".)

REFERENCE COMMITTEE "B"

Reference Committee "B" met on May 15, 1951. Committee members present were: Dr. Royal A. Schaaf, Chairman, Dr. R. John Cottone, Dr. F. Clyde Bowers, Dr. Raymond S. Driscoll and Dr. H. Hale Hollingsworth.

The Committee considered the report of the Treasurer, the report of the Finance and Budget Committee, and the report of the Publication Committee.

All items in the report of the Treasurer[1] were carefully scrutinized and the tabulation was verified. The administration of the office of Treasurer is obviously on a competent and highly satisfactory level. The Reference Committee recommends to the House of Delegates that it record a vote of thanks and appreciation to Dr. George J. Young for his indefatigable effort in the discharge of his duties of office.

The Report of the Finance and Budget Committee[2] was also analyzed. The Reference Committee carefully scrutinized every item in the requested budget for 1951-52. The Committee was given full information about all items by the Chairman of the Finance and Budget Committee, Dr. Allman. It is satisfied that the budgetary requests are fully justified and needed in the conduct of the work of the Society. The Committee recommends that the House of Delegates approve the requested budget for 1951-52 as submitted by the Committee on Finance and Budget without alteration.

The Committee recommends that the budgetary assessment for 1952 be placed at $25. The Committee was favorably impressed by the accuracy and full information placed at its disposal by Dr. Allman and recommends to the House of Delegates that that body express its appreciation to the members of this Committee for the time and effort which they have put into the study and preparation of the budget for the ensuing year.

Your Committee considered the report of the Publication Committee and recommends to the House of Delegates that it be approved, as published, without modification.

Dr. Davidson, our editor, appeared before the Committee and discussed many problems which confront the Publication Committee and the editor. The Reference Committee wishes to commend the Publication Committee and, most especially, the editor, Dr. Davidson, for the high standards which THE JOURNAL has maintained during the past year as in previous years. The material published in THE JOURNAL has been of high quality and reflects the scholarly talents and literary ability of our distinguished editor. The Committee wishes to commend the Publication Committee and the editor for the outstanding character of our monthly publication.

(On motion made, seconded and carried, the report of Reference Committee "B" was adopted.)

PRESIDENT CROWE: Next item on the agenda is from Reference Committee "C".

(Dr. Kump then read the Report of Reference Committee "C", which was adopted, item by item, upon motions regularly made, seconded and carried.) The report follows:

REPORT OF REFERENCE COMMITTEE "C"

Reference Committee "C" met on May 15, 1951, with the following members in attendance: Drs. Harry F. Suter, Lewis C. Fritts, Norman W. Burritt and Albert B. Kump. Dr. Jesse McCall was absent.

Drs. Royal A. Schaaf, Joseph P. Donnelly, Vincent P. Butler, William F. Costello and Elmer P. Weigel were of valuable assistance in the considerations pertaining to the National Health and Medical Care resolution.

1. *Civil Medical Defense*—Dr. McBride's report was accepted with the recommendation that we continue to cooperate with Civil Defense.

2. *Emergency Education Program*—The report was accepted and your Reference Committee urges that efforts through direct contacts be vigorously continued.

3. *Medical Service Administration*—The report was accepted in entirety. It may be noted that this plan for the indigent and medically indigent is available to any municipality. Congratulations are extended to the Medical Service Administration upon the success of the City of Newark Plan. Nominations to the Board of Governors were approved.

4. *Medical-Surgical Plan*—The progress report as published in the May JOURNAL was approved in its entirety. The supplemental report[3] was also approved as were nominations to the Board of Trustees.

We approved the resolution for the recommendation of Dr. Charles W. Barkhorn to the Medical-Surgical Plan Board of Trustees when and if a vacancy occurs.

5. *Physician Resources Committee*—The report was approved with commendation to the committee under Dr. Herrman, and we urge attention to the specific recommendations at the conclusion of his report.

6. The resolution on the New Jersey Plan as submitted by Dr. Donnelly of Hudson County, received the approval of the committee.

7. The resolution by Dr. Butler pertaining to the National Health and Medical Care Program was approved with the following deletion: "that because no better program, in fact no positive program has been proposed by the A.M.A." Dr. Butler concurred in the deletion. The resolution now reads as follows:

> RESOLVED, by the House of Delegates of The Medical Society of New Jersey, in its annual meeting assembled on May 15, 1951, that this House of Delegates reaffirm the action of the Board of Trustees in formulating and offering to the public on January 30, 1950, a statement of twelve Proposals for a National Health and Medical Care Program; and
>
> BE IT FURTHER RESOLVED, that the Delegates representing The Medical Society of New Jersey be authorized and directed to reintroduce the proposed National Health and Medical Care Program of The Medical Society of New Jersey to the House of Delegates of the A.M.A., in June 1951, and use all their energies to promote its adoption.

The report as a whole was then moved for adoption and this motion was carried.

PRESIDENT CROWE: Next item on the agenda is from Reference Committee "D".

(Dr. Clarke then read the first part of the Report of Reference Committee "D".)

1. See page 26 in the Appendix to these Transactions.
2. See page 27 in the Appendix to these Transactions.
3. See page 28 in the Appendix to these Transactions

REFERENCE COMMITTEE "D"

The Reference Committee "D" met on Tuesday evening, May 15, 1951. Present were Drs. Betts, Bradley, Buchanan and Clarke.

The Committee had for consideration the reports of the Medical Defense and Insurance Committee, the Scientific Work Committee, the Advisory Committee to the Woman's Auxiliary, the Medical Education Committee, and, that of the New Jersey State Board of Medical Examiners; and additionally two resolutions referred to it from the House of Delegates introduced by Dr. Snedecor of Bergen County and Dr. Donnelly of Hudson County. During the course of its deliberations a supplementary report was introduced from the Woman's Auxiliary.

The report of the Committee on Medical Defense and Insurance,[4] was unanimously approved, and the Reference Committee wishes to emphasize those parts of the report on professional liability insurance, setting forth the high ratio of members of the Society insured; the advice of the Committee to the members of the Society as to the advisability of the adequate rather than minimal protection limits; and the last paragraph stating the willingness of the Committee to make themselves available to county defense committees in case of need.

The Reference Committee also calls attention to the first and fourth paragraphs of the report on Accident and Health Insurance setting forth the increase of monthly benefits payable and the pooling of the insurance risks in our Society with those of other large groups. The Reference Committee takes this opportunity to congratulate the Society upon its good fortune in having available the services of the Committee on Medical Defense and Insurance, and unanimously approves the recommendations contained in the report.

The Reference Committee approved the report of the Medical Education Committee[5] and especially calls attention to the hope there expressed that the services of a full-time medical educator may be acquired through the philanthropy of socially-minded citizens without expense to the Society.

The report of the Committee on Scientific Work was studied and the stated difficulties of accomplishing its functions were noted. It is the recommendation of this Reference Committee that these difficulties be borne in mind, with the possibility that some coordination in the work of the Committee on Scientific Work and the Committee on Medical Education may be effected through the offices of a full-time medical educator and administrator as noted in the report of the Medical Education Committee.

The report of the Advisory Committee to the Woman's Auxiliary and the Program of the Auxiliary for the year 1951-52[6] were reviewed. While the report of the Advisory Committee was unanimously approved, the Reference Committee was of the opinion that this short report could not adequately express the sense of heart-felt obligation of the reporting Committee and of The Medical Society of New Jersey to the members of the Woman's Auxiliary, individually and collectively, for the efforts, accomplishments, and the sustaining spirit of this magnificent group of civic-minded women. The Reference Committee feels itself inadequate to express the appreciation of the Society to the Woman's Auxiliary.

The report of the New Jersey State Board of Medical Examiners is approved, and the Reference Committee takes this opportunity, at a slight risk of presumption, perhaps, to remind the membership of the very responsible nature of the work performed by the State Board of Medical Examiners in the interest of the public welfare.

The resolution introduced into the House of Delegates by Dr. Snedecor approving the principle of exchange students in the interest of better understanding between men and of the acceptance by hospitals in this state for intern training of citizens of foreign countries under the conditions outlined in the resolution is approved. The resolution reads:

> Whereas: The United States of America is proclaiming the philosophy of the Brotherhood of Man and is prosecuting a policy of Education in its effort to secure World Peace; and
>
> Whereas: The Art and Science of Medicine knows no national boundaries; now
>
> THEREFORE BE IT RESOLVED: That this Society approves the principle of Exchange Students in the interest of better understanding between men and approves of Hospitals in this state accepting for intern training citizens of foreign countries, who are recent graduates of acceptable foreign schools; and that the Medical Staffs of said Hospitals be urged to teach not only the best in American Medicine, but also, by example and precept, the best in American Democracy, with the hope that the Exchange Student will be so saturated with Democracy as to be effective in sowing the seeds of Democratic Principles upon his return home.

The Reference Committee especially commends Dr. Hilton S. Read of Ventnor for his interest, energy and foresight in effecting this very desirable arrangement. The Reference Committee recommends the adoption of the resolution and is in accord with the request that the A.M.A. Delegates be instructed to introduce the resolution at the annual meeting of the A.M.A. in June.

(This portion of the report was adopted, paragraph by paragraph, upon motions regularly made, seconded and carried. Dr. Clarke then read the remainder of the report.)

The resolution opposing Annual Registration of Physicians referred to the Committee after introduction on the floor of the House of Delegates by Dr. Donnelly of Hudson County was debated at great length before the Committee. Appearing *in support* of the resolution were Drs. Greifinger, Echikson, Kraker, Donnelly, and Weber. Appearing *in opposition* to the resolution were Drs. Herrman, Chairman of the Physician Resources Committee; Hornberger, Read, Allman, Weigel and Rowland. In support of the resolution there were advanced the arguments (1) that the enforcement of the law relating to the illegal practice of medi-

4. See page 29 in the Appendix to these Transactions.
5. See page 30 in the Appendix to these Transactions.
6. See page 30 in the Appendix to these Transactions.

cine should be a matter for the State through the office of the Attorney General as a criminal matter and that such violations of the law should not be handled as civil matters subject to fine, in the event of conviction, but without prohibition for further violation; (2) that a resolution passed by the House of Delegates many years ago declaring it to be an improper practice for any member of this Society to advocate an annual registration of physicians had never been repealed, and raising the objection of order and procedure; (3) that the precedent of establishing a special annual tax against the individual members of the medical profession who are already legally licensed would be unwise; (4) that the tax would be used for the purpose of prosecuting violations of the Medical Practice Act, which expense is properly a problem for the State at large; and (5) that the failure to pay the annual registration fee on time would render the physician an illegal practitioner and his malpractice insurance contract would become void.

Dr. Herrman spoke against the resolution as the Chairman of the Physician Resources Committee. He stated the inability of his Committee to obtain accurate information as to who was and who was not practicing medicine in New Jersey. He referred to the report of the New Jersey Medical College Commission in which three different figures from as many authoritative sources as to the number of physicians in active practice were given, with a difference of over 1500 between the high and the low. He and Dr. Weigel cited as a fact that all other professional groups in this state were subject to annual registration at a nominal fee and that annual registration of physicians is required in New York and Pennsylvania. Dr. Herrman cited the invasion of this state by physicians from neighboring states and the protection which this provision would afford the local profession.

Dr. Hornberger, speaking against the resolution, stated that he had been unable to get a proper list of physicians practicing in Burlington County and cited the need for protecting the public against illegal practitioners operating under fraudulent licenses. Dr. Hilton Read spoke against the resolution. Dr. David B. Allman spoke against the resolution, urging annual registration with an annual fee of $1. to $2. to be used entirely for administrative purposes and stated that there was no other way accurately to determine who was and who was not licensed to practice medicine in New Jersel. He cited the fact that the neighboring states of New York and Pennsylvania have this requirement and that the dentists of this state have an annual registration and do not object to it.

Dr. Elmer P. Weigel, Union County, spoke against the resolution and stated that annual registration is necessary to enforce the Medical Practice Act.

Dr. Rowland of Middlessex County spoke against the resolution and in favor of annual registration on the basis of his experience as a member of the State Board of Medical Examiners and the difficulties of the Board in attempting to enforce the Medical Practice Act.

The members of the Reference Committee were unanimously of the opinion that the arguments adduced for the resolution were far outweighed by those advanced against it, and the Committee recommends that the resolution not be adopted.

DR. CLARKE: Mr. Chairman, I move the adoption of this portion of the report.

(The motion was seconded.)

DR. DONNELLY: Mr. Chairman and Members of the House of Delegates: I am not going to argue here today the rights or wrongs of annual registration. I just want to bring to your attention again that I still believe that this body here today is the governing body of the State Medical Society — the House of Delegates. Twice in the past you have gone on record against annual registration and that, as far as I know, is the policy of this Society. You people of the House of Delegates twice voted against it.

In the past year a bill was introduced into the Legislature, I believe at the request of the State Board of Medical Examiners, without discussion with our Board of Trustees or with this House of Delegates. The Trustees of our Society voted among themselves *not* to disapprove of this bill although this was not discussed before our House of Delegates which had previously opposed it. No record of this vote that they would *not* disapprove was printed in the minutes of the Board of Trustees as published in the JOURNAL.

Now, I am *for* this resolution, though I will admit that good reasons can be cited against it as well as for it. I am speaking for only one reason to prove beyond doubt that the House of Delegates of The Medical Society of New Jersey is still the governing board of The Medical Society of New Jersey and for that reason, gentlemen, I ask you to vote for my resolution. (Applause)

DR. ALLMAN: Just so the record is kept straight and no one is misled, this bill was *not* introduced by the Board of Medical Examiners. It originated in the office of the Attorney General.

I am not going to enter into the pros and cons of the resolution nor explain why we should have annual registration. As has been proved by the Committee report, the arguments in favor of annual registration far outweigh those against it. Those against it were, to me, not only picayune but stooped to a pretty low level in some places.

For example, one of the gentlemen defending the resolution said that the reason that we of the State Board of Medical Examiners wanted annual registration was so we could get more salary. Now, that comes pretty near being the quintessence of hitting below the belt. It is a ridiculous statement. But those are the arguments that they advanced.

I might say for the Trustees that the reason there wasn't anything printed was because they took no action on it. It wasn't their proposal; it wasn't recommended to them by the State Board; and they felt that inasmuch as it originated in the State Attorney General's office that we had better not interfere too much in that.

DR. WEIGEL: Mr. Chairman and Members of the House of Delegates: I am a little bit at a loss to understand what point we are trying to decide. If nobody is willing at this time or if nobody cares to go into the various merits or disadvantages of annual registration and we are going to base our discussion only on the fact that twice in the past the House of Delegates voted against annual registration, I don't see any reason why we should be bound forever by a vote which apparently seemed to be the right thing to do at that time.

Those of us who sit on the State Board of Medical Examiners and are continually faced with the number of people in this State who are practicing medicine without the right to do so would be quite of a different opinion, I am sure, if they realized in how much better position we would be if we *had* annual registration. Then, each year we could accurately check up on those who were entitled legally to practice medicine . The cost is so little; in fact, it is simply that which would cover the clerical work necessary.

The fact that we are going to get more money as members of the State Board of Medical Examiners is ridiculous. We won't have any more money, gentlemen, and it won't cost anybody enough money to make this thing possible to let that enter into it.

I think every member of The Medical Society of New Jersey should be interested in trying to put the practice of medicine on that much higher level to make it possible for us to exclude those who have no right to practice medicine. After all, this is done in New York; it is done in Pennsylvania, it is done in many of the other states. Physicians and osteopaths are the only professional boards in this State that I know of at the present who do not have annual registration.

I sincerely hope the members will see the reason for this. There is nothing personal. Nobody is going to gain anything by it individually. It is for the benefit of the Society and the practice of medicine as a whole. Thank you. (Applause)

DR. HERRMAN: Gentlemen, I am not running for office and I have no axes to grind. I have had in the last nine months some very personal experience with the necessity of knowing someway, somehow, who are *practicing* in New Jersey as well as those doctors who are *living* here.

Among the arguments brought out against this is that it is a form of taxation. I was somewhat interested in that. Many of those worried about taxation were Democrats who have certainly been voting for taxation for quite a few years. (Laughter)

Now, in the report on the proposed medical school they wind up on our financial section with a statement that, considering the financial condition of New Jersey, if we are to have a medical school new taxes will be in order. Now, I don't want to put any thought in somebody's mind, but while we feel that a medical college would be of value to the four million citizens of New Jersey, I am sure that many laymen and some legislators would figure that the doctors are going to benefit particularly and therefore maybe there should be a special tax on the doctors.

If we have a bill that we favor, which limits taxation for registration to a nominal figure, before they could do any such thing as that they would have to rescind that statute. That would be a little more difficult than just slipping another tax over on you. So the fact that you don't have annual registration doesn't mean that you are not going to be subject to further taxation.

Dr. C. P. Crowe of Orange is a member of the State Advisory Committee, Selective Service for Dentists. He could not understand my problem because all he had to do to find out who was practicing dentistry in New Jersey was to get in touch with the State Board of Dental Examiners and, at once, he had an accurate list for the previous year.

We are constantly having requests from Washington about physicians whose homes are in New Jersey but who practice entirely in New York or in Pennsylvania. We have during the summer in the resort areas, from which I come, many physicians—they are quite competent, it's true—who come from Pennsylvania and New York or other states; they practice for two or three months in our resort area; they compete with the members of this Society; and unless some member of the State Board of Medical Examiners happens to visit them or unless some local physician decides that he doesn't mind being called a snooper and a meany, they come in June, they leave in August or September, and nobody has investigated them.

You have all received this very nice little card to place on the desk, showing that you are a participating member of the Medical-Surgical Plan. Now, if we had something of

that sort that hung in the waiting room it would be very quickly ascertained by anybody whether that physician was legally licensed to practice medicine in New Jersey. Furthermore we would not have trouble with some of those who have a license, we'll say, in osteopathy or something else from another state and who settle in our communities for a short time.

I have been a member of this Society for more than thirty years. From the beginning I have heard all the arguments against annual registration. I could never see the point of them, but I have tried to be a good organization member and never took active part one way or the other. I always felt that annual registration had many advantages. But, gentlemen, having gone through a difficult period in which we sent out over 7000 questionnaires with an 89 per cent return—I'm very proud of that—but still I know the difficulties that we have had because we do not have any way of finding out who is practicing medicine.

Now, some of the proponents of this resolution state: Why, the County Clerk's office. They haven't had the experience that we have had.

I can take my own license. I'm licensed in the State of New York, Kings County. Where is my address? In Kings County Court House. I was an intern in the Brooklyn Hospital. My license is registered in Freehold. Where is my address? In the office of a doctor who is now dead.

When we tried to comb the county clerks' offices for registrants in the last five years, we found many of those who registered did it because possibly they thought they might like to come to the Garden State a little later on, but they weren't here now. They were in some other state; they weren't here at least. They weren't at the address given in the county clerk's office from which they registered their diploma.

So I feel from nine months' experience that annual registration would be a benefit to every doctor in the State who was operating above the counter and not under it. Thank you. (Applause)

VICE-PRESIDENT DECKER: President Crowe, Members of the House of Delegates: I was in the meeting room of the reference committee that heard this last night and I was very much disturbed because some of the statements that were made, as Dr. Allman has very mildly indicated, were such that would create a fight in any well conducted barroom.

There is an implication in this resolution that you may have missed. I didn't get it until I heard it read. "The Board of Trustees of the Medical Society in a recent meeting voted *not* to disapprove of a bill for annual registration which was introduced in the recent session of the Legislature; and then the Board of Trustees failed to report their action in the minutes of the meeting as published in the JOURNAL."

The minutes are not published in full in the JOURNAL. There is no requirement that they be published. They are abstracted.

Let me read the minutes to you. "Establishment of Annual Registration of Physicians—After weighing advantages and disadvantages of annual registration of physicians, Dr. Costello moved that the Trustees instruct the Legislative Committee not to oppose the proposed legislation on annual registration of physicians. Seconded by Dr. Sica and unanimously approved."

Now, a copy of these minutes was sent to each member of the Board of Trustees, to the officers and to the secretary of each county society. We assume that the secretaries of the county societies read them. Probably the Trustees and officers do not, and if any question should have been raised it should have been called to the attention of the Trustees in December or January rather than at the present time.

The resolution implies a distrust of the Trustees and in the officers that I personally do not like.

DR. SCHAAF: Mr. Chairman and Members of the House of Delegates: I speak now as an eleven-year member of the Board of Medical Examiners and I would like to endorse what Dr. Allman and Dr. Weigel have said about the need for annual registration in order to enable the Board of Medical Examiners to function properly and adequately.

Unless you sat on the Board, you would have no conception of the chaos in its records from lack of knowledge of who is actually practicing. We know to whom we have issued licenses; we know the number of licenses which have been issued; we have some record of men who die; we have some record of men who leave the state or who apply for transfer of their licenses; but we have no way of knowing who has retired; we have no way of knowing who is practicing without any license whatever. Unless we have some annual roster which will give us some accurate record of the practitioners, we are working in the dark.

The thought has been expressed that the Board of Medical Examiners would like to increase their income to the Board so they could get a little more salary. Well, there are nine

members of the Board of Medical Examiners who are members of this Society. I assure you that every one of them loses money by taking five hundred dollars a year from the Board of Medical Examiners because we all lose more money than that in the hours we spend in meetings and in travel.

If you read the bill you will find that some of the allegations against it are not well founded. For example, the law as proposed limits the power of the Board to charge for annual registration to a figure not to exceed five dollars. That was to give the Board latitude in establishing exactly how much it would cost for clerical service and then we would set that fee at somewhere within the five-dollar limit, and it would probably be two or possibly three dollars.

The fear of losing your license if you do not pay your fee is pure nonsense. If you read the bill you will find that you register on August 1, 1951, let us say, or when the bill is passed. You get a second notice on September 1; you get a third notice on October 1; and you get a final notice on November 1, at which time the license is *suspended* until the registration is paid. Then there is a nominal charge, which is about twice the cost, to reinstate the license. I simply cannot conceive of a man who would be so careless or be in such a physical state, who with ninety days and four reminders doesn't keep himself in good standing. It is incomprehensible to me that any man intelligent enough to practice medicine could find himself in that spot. I assure you that if the Board knew of a man who had a stroke or a coronary attack, who was incapacitated, they would not suspend his license at the end of ninety days.

I urge this body to sustain the motion of the reference committee on the ground that annual registration is essential to the welfare of the people of New Jersey and to the welfare of the medical profession itself. (Applause)

Dr. Ely: Mr. President, Members of the House of Delegates: For the information of Dr. Weigel and other members, I go back to the time when the first attempt to support annual registration came before the House of Delegates. That year, a distinguished member in one of our southern counties received the honor of being elected first Vice-President, Dr. Halsey. Without the knowledge of the Board of Trustees, he presented a bill to the Legislature for annual registration. The House of Delegates at the next meeting failed to elect Dr. Halsey as President of this Society. He was defeated for acting without the knowledge of the Board of Trustees.

One of our honored members from Hudson County, a member of the Board of Medical Examiners, saw the extreme need of having annual registration. He brought the matter several times before the Board of Trustees and tried to get the House of Delegates to support the annual registration. It was defeated the second time.

We have members on the State Board representing our Society. They know the problems of men practicing medicine in our state. Our Attorney General seems to realize that annual registration is needed for controlling unethical or unlicensed physicians. I think it is now time when we should give it consideration.

Times do change. We are having men from other countries coming into this state now. They may be licensed in foreign countries or alumni of foreign universities, but they do come into our large cities and start practice without anybody knowing who they are. They just possibly show their graduation and they practice—so I have heard from some of the men in the city.

Dr. Herrman's argument I have heard several times. Men coming from Pennsylvania, Maryland and other nearby states, opening up offices and competing with the regular members of our Society.

I really do believe the time has come. One dollar! We spend many dollars foolishly, but this will not be a foolish expenditure and I certainly approve this resolution. (Applause)

Dr. Quigley: Mr. President, I think Dr. Ely won't mind if I say that in mentioning Dr. Halsey's name he was in error. It was Dr. McAllister.

Dr. Ely: McAllister. Excuse me. Correct that.

Vice-President Decker: Dr. McAllister was never endorsed by the Camden Medical Society. He was defeated for the Vice-Presidency twice.

President Crowe: Dr. Figurelli of Hudson.

Dr. Francis A. Figurelli: It seems that all we are doing is trying to police ourselves. We seem to want to find means of holding ourselves back. Only this morning over the radio it was broadcast that there must have been so many grievances against the medical profession that we have to have a sterner policing force against our own members. Gentlemen, not even a labor union does that. We don't try to lower our profession and bring it down to the gutter, which we are slowly doing. We must build prestige for ourselves.

If we feel that we cannot find out who is practicing illegally in our towns or communities, then I suggest that this Society set aside a sum of money and do it ourselves. And let us persecute when we start—prosecute, excuse me—well, persecute, too. (Laughter)

I oppose annual registration. It is only the start. In my young life all I seem to see every year is some new way of registering, signing up for something or other, sort of policing myself—always some kind of registration, federal, state or county.

I do sympathize with the men along the Jersey shore. There are outsiders that do come in. It should be the job of the county society to see that these men are not permitted to practice and we as Delegates should see that the State Society sets aside a sum of money and do our own, shall we say, police work in finding out who is practicing illegally.

I am not so much worried about the doctors who are practicing illegally, as about non-physicians who are practicing everywhere in this state and every other part of this country.

I oppose registration. It is bad policy. The less registrations we have the better off we are. But I do suggest that this Society study the possibility of finding a definite way where we can police our own illegal practitioners and legal practitioners.

DR. KRAKER: Gentlemen, I am surprised at the reaction of the members of the State Board who have taken a semi-facetious remark as their main defense point. Dave Allman knew I wasn't trying to offend him when I said, in passing, that they might increase their salaries. I knew very well that they don't live on this salary, and it makes no difference.

But the point is this proposition has been before the Society on numerous occasions. It is on our minute books that we have opposed the principle of annual registration. It went so far as to affect the future of one of our very able men years ago, mentioned by Dr. Ely. It again came up some years later. Now, it is on our records that The Medical Society of New Jersey is opposed to annual registration.

The Reference Committee approves, at least recommends that it not be approved, this bill. It seems to me—

(There were several Noes.)

PRESIDENT CROWE: I think that portion of Dr. Clarke's report disapproves of the resolution. Is that right, Dr. Clarke?

DR. CLARKE: That's right, sir.

DR. KRAKER: That is, it favors the statement made by those who proposed objections to the passage of this particular bill.

(There were several Noes.)

DR. KRAKER: I'm telling you, you are all confused. The question is whether the Reference Committee reported to recommend to this House of Delegates action on this bill in its favor; that is, the passage of the resolution of Dr. Donnelly opposing the passage of this particular bill by the Legislature, or whether they approved its passage; that is, whether the arguments for the bill last night or against it were in the opinion of the Committee acting—

DR. CLARKE: Mr. President, the action of the Reference Committee was on the resolution introduced by Dr. Donnelly alone and did *not* specifically pertain to any proposed legislation which may or may not have been introduced. I had no knowledge of any introduction except as Dr. Schaaf just mentioned. Our recommendation pertains to the resolution only.

DR. KRAKER: Now, gentlemen, we have before us a proposition on annual registration. But in our record books are two resolutions and plenty of action opposing annual registration. The principles of opposition are not much changed today from what they were twenty years ago. The same arguments are favored by the members of the Board.

Dr. Herrman's argument might be very good if we had no other means of finding out who was practicing medicine. But before we can take any action on the question of approving or disapproving this legislation which is now in abeyance before the Legislature we must repeal our previous action.

I move that it be tabled until such time.

(Question called.)

PRESIDENT CROWE: Members of the House of Delegates, you are voting on a portion of the report of Reference Committee "D".

DR. DONNELLY: I won't prolong this any further, gentlemen. As I said, I am not going to argue the pros and cons; I just want to clear up a few things.

I am sorry if I was misinformed, but I was told by several Assemblymen that this bill was introduced by the Attorney General at the request of the State Board of Medical Examiners. If I made a mistake, I'm sorry. I asked the question last night; I was not answered. So if there was a misinterpretation, it's certainly that.

As far as salaries is concerned, it's a joke. Who else would take the job but the fellows who are doing it? (Laughter)

I just want to say to Dr. Decker that I did not mean to be subtle when I wrote that resolution. The House of Delegates have been against this. If you want to get it changed, Dr. Herrman, Dr. Allman, Dr. Schaaf, Dr.

Decker, Dr. Ely, introduce a resolution before the House of Delegates for annual registration and you will get a lot of help even from Hudson County. That is the way to do it, but until that resolution is introduced I think that the Board of Trustees of this Society should be guided by the action of the House of Delegates in the past on these matters and when you are saying that you are not doing anything when you vote not to disapprove something which we have already disapproved, I say you are taking very positive action. The Board of Trustees were acting in a way that they shouldn't have acted after the action of the House of Delegates, and for that reason I introduced this resolution.

I ask you gentlemen to pass my resolution. It will only take a year and if they all get together and introduce the resolution before the House of Delegates for annual registration next year they will probably get it passed. In the interim I think our Trustees should be guided by the action of the governing body of our Society, which you gentlemen have previously taken. Thank you. (Applause)

PRESIDENT CROWE: Members of the House of Delegates, the motion before the House is to sustain that portion of the report of Dr. Clarke's Committee which disapproves of the resolution of Dr. Donnelly. Are you ready for the question? All in favor of the motion let it be known by standing.

(A number of Delegates arose.)

PRESIDENT CROWE: All opposed, stand.

(A number of Delegates arose.)

PRESIDENT CROWE: The motion is carried and I so order.

DR. CLARKE: Mr. President, I move the adoption of the report as a whole.

(The motion was seconded.)

PRESIDENT CROWE: All in favor of the motion let it be known by saying "Aye". Opposed? So ordered.

(There were several noes.)

PRESIDENT CROWE: Reference Committee "E", with Dr. Herschel S. Murphy as chairman will now report.

Dr. Murphy then read the first six paragraphs of the report of Reference Committee "E".)

REPORT OF REFERENCE COMMITTEE "E"

Reference Committee "E" met on May 15 with all members present.

We considered the report by the Chairman of the Welfare Committee, Dr. Samuel Blaugrund; we approve of his report. Our Committee felt that he was to be commended upon a good year's work well done.

We commend the Committee on Legislation upon their report. We also studied the supplementary report[7] by the Legislative Committee and approve of that.

We approve of the Medical Practice Committee report and commend them on doing an excellent job.

We have studied the report of the Public Health Committee and we agree with their philosophy of cooperation and coordination with and control of the activities of lay organizations by the medical profession. We commend them upon their report and a good year's work well done. We approve their report.

We especially wish to commend the Public Relations Committee upon their ambitious and far-reaching program, and we agree with them that it would be worthwhile for The Medical Society of New Jersey to sponsor a combined press conference, together with county Public Relations chairmen and Speakers' Bureau chairmen, in a well-planned, well-promoted dinner meeting during the coming year. We approve of their report and feel that this worthwhile program should be carried on.

Up to this point each paragraph was adopted upon motions regularly made, seconded and carried.

DR. KALB: Mr. President, I suggest that the Chairman of this Committee read all of these and then we can vote on them as a whole instead of voting on each paragraph, unless there is some one who disapproves.

DR. MURPHY: Suppose I read all that are not controversial; then when I come to one that is controversial, we stop on that.

(Dr. Murphy then read the report through "Hospital Relationships".)

We have studied the report by the Committee on Anesthesiology and it meets with our approval.

We approve of the Contract Practice Committee report.

We have studied the report by the Committee on General Practice and it meets with our approval.

The report of the Committee on Laboratory Medicine is a review of continuing activities on a long-range basis and we approve of their report.

The Nursing and Nursing Education Committee report is approved. This has been a difficult committee assignment and we commend Dr. Jack and his committee on their hard work over the past year. We agree that a plan should be worked out to graduate more registered nurses as well as practical nurses. We approve their report.

The report of the Committee on Pharmaceutical Problems is approved. We wish to commend them on the excellent Sixth Edition of the *New Jersey Formulary*.

The report of the Committee on Physical Medicine has been studied with interest, and we commend them on their standards for the organization of a Physical Medicine Department in general hospitals. We approve their report.

7. See page 30 in the Appendix to these Transactions.

The report of the Committee on Radiology is approved.

The report of the Committee on Welfare Services was considered by the Committee and we note that under new Social Security law (August, 1950) it is now possible for old age assistance authorities to pay physicians directly for medical services. This is a step in the right direction. We approve of their report.

The report of the Committee on Adult Disease Control is approved.

The report of the Committee on Cancer Control was studied and we find it to be very comprehensive. We commend this Committee on their excellent cooperation between laymen and physicians. The report is approved.

The report of the Committee on Cardio-Vascular diseases is approved.

The report of the Committee on Chest Diseases was reviewed with interest. We studied with special interest their recommendation that a tuberculin test, either Mantoux or patch test, be used as a screening measure on children before doing a mass x-ray survey, and that x-rays be done routinely only on those children that give a positive tuberculin test. We approve their report. Dr. Jaffin came before the Committee with a supplemental report showing the low incidence of tuberculosis in children in New Jersey. Unfortunately, this report had not been presented previously to the House of Delegates so we were unable to consider it. Perhaps it will be possible for it to be printed later in THE JOURNAL, as the statistics are interesting.

The report of the Committee on Child Health was approved.

We studied the report of the Committee on Conservation of Vision and Hearing. We agree with them that lay organizations and non-medical groups should not invade the field of eye examinations. We approve their report.

The report of the Committee on Maternal Welfare is approved.

The report of the Committee on Mental Hygiene was studied. We noted their interest in the establishment of psychiatric services in general hospitals and we feel it is a favorable "straw in the wind" that three large general hospitals are currently preparing to expand their facilities to include psychiatric services. We agree that it is worthwhile to have the Woman's Auxiliary to The Medical Society of New Jersey, through a committee help foster a specific health program for children of all ages, and that this organization take the school mental health program to the citizens of the state. We approve their report.

The report of the Rehabilitation Committee concerned a number of problems. We noted especially their interest in speech therapy for children with cleft palates and hare lips following plastic operation. We feel this is a most worthwhile program. We approve their report.

The report of the Committee on Rural Health was approved.

The report of the Committee on Tropical Diseases was studied and approved.

The report of the Committee on Venereal Disease Control was gone over carefully. Their comments on penicillin therapy for syphilis are most worthwhile; also, their suggestion that more spinal taps be done to determine the efficacy of penicillin therapy. We studied with interest their recommendation that from 10 to 25 million units of penicillin should be given, together with spinal taps, in order to have negative results. Their report recommends that the attention of the State Department of Health be called to this plan of treatment. We recommend the approval of their report as a whole.

We approve of the report of the Committee on Hospital Relationship.[8]

DR. MURPHY: Mr. Chairman, may I stop there and ask for the approval to this point of the various reports that I have read, down through "Hospital Relationships"?

(Motion was made, seconded and passed.)

The report of the Committee on Workmen's Compensation and Industrial Health[9] was considered. While we approve of most recommendations, we wish to call your attention especially to the following paragraphs

"That in fracture cases where there are no objective findings or permanent loss of function, the making of disability awards be disapproved."

"That the making of permanent awards until a period of at least six months is past from the date of injury, or the maximum disability has been reached, be disapproved."

"That general approval be given to part 3 of the recommendations of the State Chamber of Commerce: 'The Workmen's Compensation Law states than an injury to be compensable must 'arise out of' employment. It is important that claims be carefully examined to assure that this qualification is met. (Unfortunately, of late it would appear that such has not been the case.) Particularly is this true since the advent of the Temporary Disability Benefits Law in New Jersey, under which workers are entitled to benefits for injuries not compensable under Workmen's Compensation. Unless this qualification is strictly observed it will result in the Temporary Disability Benefits program's receiving a hidden subsidy.'"

These three paragraphs touch on controversial problems. It is the recommendation of our Committee that they be referred back to the Workmen's Compensation Committee for further study and clarification. Other than this, we recommend the adoption of their report.

(The motion was seconded and passed.)

DR. MURPHY: We recommend the adoption of the report of the Reference Committee as a whole, Mr. President.

(The motion was seconded and passed.)

PRESIDENT CROWE: The next report is from the Constitution and By-Laws Committee; Dr. C. Byron Blaisdell, Chairman.

8. See page 31 in the Appendix to these Transactions.
9. See page 31 in the Appendix to these Transactions.

(Dr. Blaisdell then read the Report of the Reference Committee on Constitution and By-Laws, both items of which were adopted upon motions regularly made, seconded and carried. The report follows:)

REFERENCE COMMITTEE ON CONSTITUTION AND BY-LAWS

This Committee met on May 15, 1951, and considered the two matters referred to it.

1. The Committee approves and recommends adoption of the recommendation for amendments to the Constitution relating to the Judicial Council as submitted at the last year's meeting of the House of Delegates. (See below)

2. The Committee carefully considered the recommendation of the Board of Trustees concerning the formation of an Executive Committee and approves the amendment to the By-Laws as submitted and recommends its adoption.

The Reference Committee on Constitution and By-Laws recommends the adoption of this report as a whole.

C. Byron Blaisdell, M.D., Chairman.

ARTICLE V—HOUSE OF DELEGATES

Delete the phrase "and shall hear appeals from the decisions of the Judicial Council,".

The amended Article will then read: "The House of Delegates shall be the legislative body, and shall consist of the Fellows, Officers and Delegates."

ARTICLE VII—COUNCILORS

Amend this article to read as follows: "The Councilors collectively shall comprise the Judicial Council which shall be the judicial body of the Society. The House of Delegates shall organize five (5) councilor districts within the state. It shall elect one (1) councilor to represent each district from among the membership of each such district."

ARTICLE IX—OFFICERS

Amend Section 2—"Election" (first line) now reading: "The Officers shall be elected by this Society. . . ." to read: "The Officers shall be elected by the House of Delegates. . . ."

President Crowe: Now we hear from the Reference Committee on Miscellaneous Business.

(Dr. Bray read the report of the Reference Committee on Miscellaneous Business which, on motion, was adopted by the House. The report follows):

REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

The Reference Committee on Miscellaneous Business met on May 15 with all members present. The report of the Annual Meeting Committee was read and approved.

The report of the Subcommittee on Scientific Program was read and approved. The committee brings the attention of the House of Delegates to the fact that several members of the Society appeared before the committee and disapproved of the present plan of the Scientific Program: (1) because of the small attendance of specialists; and (2) because the present plan impaired the identity of the various specialties yet failed to attract a sufficient number of general practitioners to compensate for this loss. The committee felt this should be studied by the Board of Trustees.

The report of the Subcommittee on Scientific Exhibits was read and approved. The committee felt it unwise to separate the educational and scientific exhibits.

The place and time of the Annual Meeting, Haddon Hall, Atlantic City, on May 19 to 22, 1952, was approved. A number of members of the Society appeared before the Committee and objected to these dates because it would start the meeting on Monday. The feeling was that the stress of practice of the average physician was greatest on Monday—and that a larger attendance could be expected if the convention started on Tuesday or Wednesday. Furthermore, the annual meeting starting on Monday worked a hardship on the exhibitors, scientific and technical. The committee felt that the House of Delegates and the Board of Trustees should study this matter and seriously consider a change in dates when reservations permit.

William E. Bray, M.D., Chairman

President Crowe: The next item is the report of the Reference Committee on Resolutions and Memorials.

Dr. Ulmer: Mr. President and Fellow Members of the House of Delegates: Your Reference Committee on Resolutions regrets that it received no resolutions for consideration and action.

We approved the nominations made by the county societies for emeritus membership.[10]

I move the adoption of the report.

(The motion was seconded and passed.)

President Crowe: At this time it is the extreme pleasure of the President to present to you your new Second Vice-President, Dr. Lance. (Applause)

Dr. Lance: Mr. President, Members of the House of Delegates: I shall take only sufficient time to tell you how deeply I appreciate the honor you have conferred upon me and to thank you for it. I should like to tell you also that I appreciate the responsibilities which it carries and shall do my utmost to discharge them. Thank you. (Applause)

President Crowe: Is there any unfinished business? Hearing none, I call for the announcement of the scientific exhibit awards.

Secretary Greifinger: Here are the 1951 Scientific Exhibit Awards.

10. See page 31 in the Appendix to these Transactions.

1951 SCIENTIFIC EXHIBIT AWARDS

CLASS I—Scientific Exhibits of Individual Investigations, judged on the basis of originality and excellence of presentation.

1st Prize—Gastroscopic Biopsy
Paul L. Shallenberger, M.D., Guthrie Clinic, Sayre, Pa.

2nd Prize—Pediatric Surgery
Robert B. Lobban, M.D., Lawrence E. Ulvestad, M.D., David K. Pinks, M.D., and Charles P. DeFuccio, M.D., Jersey City Medical Center, Jersey City.

3rd Prize—Artificial Kidney
Bernard C. Pinck, M.D., Passaic, New York University-Bellevue Medical Center, New York City.

Honorable Mention—Meckel's Diverticulum
Thomas A. Shallow, M.D., Sherman A. Eger, M.D., and Frederick B. Wagner, Jr., Jefferson Medical College, Philadelphia.

CLASS II—Scientific Exhibits judged on the basis of excellence of correlating facts and excellence of presentation, but which do not exemplify purely experimental studies; limited to New Jersey exhibitors.

1st Prize—Carcinoma of the Colon
Louis L. Perkel, M.D., and Leonard Troast, M.D., Jersey City Medical Center, Jersey City.

2nd Prize—Tumors of the Mediastinum
Henry A. Brodkin, M.D., and Emanuel Klosk, M.D., Newark

3rd Prize—Clinical Use of Cortisone and Related Steroids in Rheumatic Diseases
John W. Gray, M.D., Evelyn Merrick, M.D., and Irving L. Sperling, M.D., New Jersey Orthopedic Hospital, Orange, and Hospital of St. Barnabas, Newark.

Honorable Mention—Photography of the Eye: Anterior Segment and Eyegrounds
Margaret Markham, B.A., Photography Department, Eye and Ear Infirmary, Newark.

PRESIDENT CROWE: Thank you Dr. Greifinger. (Applause). I wish to commend the members of the House of Delegates for their good attendance and to thank you very much for your great consideration of me. You have been most kind and I hope that you approve of the way we have tried to expedite the business of the House. I think it has proved very satisfactory. We have had good attendance. We have tried not to bore you with too many details. You have had everything before you and I think it has been quite a fine innovation.

Dr. Schaaf, the Parliamentarian, I thank you very, very much.

Now it is my extreme pleasure to present to you Dr. Joseph Mott, who will introduce our new President.

DR. MOTT: On seven occasions in the past, Passaic County has been called upon to furnish the occupant of the President's chair. There was Dr. Elias J. Marsh I, Dr. Alexander W. Rogers, Dr. Elias J. Marsh II, Dr. Walter B. Johnson, Dr. Philander A. Harris, Dr. Andrew F. McBride, Sr., and Dr. Elias J. Marsh III. These eminent physicians, all men of exceptional talent and ability, served this society well in days gone by and brought much credit to The Medical Society of New Jersey.

Passaic County now presents another man of exceptional talent and ability as your new President. Dr. Sigurd W. Johnsen, no stranger to most of you, is indeed well schooled in the activities of a medical organization. Active in all phases of county work for twenty years, he served as our county president in 1941. Active in the work of The Medical Society of New Jersey for 16 years, he was Chairman of the all important Welfare Committee, the proving ground for presidential timber of this society, in 1945. Giving unstintingly of his time and energy in those final three years of advancement from second Vice-President to President, his ability to assume responsibility, to delegate authority and to solicit the generous cooperation of his colleagues, has made him especially qualified to continue the remarkable success of your retiring leader.

His entire life story is one of success attained by diligent effort and conscientious intents of purpose. As we honor him here today as a medical organization leader, so too has he been honored in the past as an eminent doctor. A Fellow of the American College of Physicians, a Fellow of the National Gastroenterological Association, a Fellow of the Radiological Society of North America . . . . these are but a few of the distinctions that have been bestowed upon him. In addition to serving as an Attending, Chief of Staff and member of the Medical Board of the Passaic General Hospital, Dr. Johnsen maintained an active interest in the civic and church welfare of his community, and commendable devotion to his wife, his son and his daughter. A navy veteran of World War I with an affinity for the sea and life afloat, his skill as the helmsman of his trim cabin cruiser can be attested by many.

We, of Passaic County feel certain today that our record of illustrious state society presidents will now continue. We offer you a leader of whom we are exceedingly proud. It gives me the greatest of pleasure to present to you our deserving colleague, from Passaic, N. J., your president, Dr. Sigurd W. Johnsen.

DR. JOHNSEN: Thank you Dr. Mott for your generous introduction. I owe an apology to my own county society, because I have

found it impossible to carry on my share of their work. They have been most generous about this and have not unduly chastised me for my delinquency.

The greatest honor that can come to any physician is to be selected to serve as President of his state medical society. I accept this honor with humility, and will do my very best to justify the trust you have placed in me.

I wish to thank Dr. Crowe, for the many courtesies shown me during his term as President. He has led the way in bringing about a spirit of cooperation in a most difficult and trying year, and I hope this same spirit will prevail throughout the coming year.

Our battle against socialized medicine is not yet won, but I feel confident that if we meet the problems of providing the kind of medical care our patients want, our system of private practice will survive and become better as time goes on.

Now that some of our most pressing problems are nearing solution, we must reevaluate the factors which are becoming detrimental to the welfare of our own membership. We can remain strong only so long as our own economic and professional status is maintained at a level commensurate with the service we render. To that end I pledge every effort will be directed, during my administration, and with your cooperation and help, we can face the coming year with confidence.

(Upon motion duly made, seconded and carried the meeting was adjourned at 3:45 p. m.)

APPENDIX

ANNUAL REPORT OF THE TREASURER

George J. Young, M.D., Morristown

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR FISCAL YEAR 1950-51
June 1, 1950—May 9, 1951

RECEIPTS

Cash on hand, June 1, 1950		$232,968.54
Assessments Received:		
Atlantic County	$ 3,780.00	
Bergen County	10,895.00	
Burlington County	1,854.00	
Camden County	6,480.00	
Cape May County	880.00	
Cumberland County	1,825.00	
Essex County	34,710.00	
Gloucester County	1,584.00	
Hudson County	14,283.00	
Hunterdon County	854.00	
Mercer County	7,465.00	
Middlesex County	5,445.00	
Monmouth County	5,027.50	
Morris County	3,960.00	
Ocean County	1,100.00	
Passaic County	12,085.00	
Salem County	800.00	
Somerset County	1,755.00	
Sussex County	850.00	
Union County	11,675.00	
Warren County	800.00	
		128,107.50
A.M.A. Dues, 1950		42,336.50
JOURNAL Advertising (net)		24,241.86
Commercial Exhibits		11,360.00
Interest		168.75
Accounts Receivable, May 31, 1950		271.98
A.M.A. Dues, 1951		76,710.00
Sale of Maternal Welfare Books		303.00
Rents		772.50
Sale of Equipment		84.00
Revenue Unexpected		10.00
Payroll Taxes Withheld		824.47
Refund of 1950-51 Budget Expenditures		671.75
Prepaid Expenses at May 31, 1950		600.00
A.M.A.—for Dues collection—1949-50		977.75
TOTAL RECEIPTS		$520,408.60

DISBURSEMENTS

BUDGET ACCOUNTS:	
A- 1—Executive Salaries	$ 29,227.48
A- 2—Executive Office Salaries	16,942.95
A- 3—Executive Office Expenses	2,206.56
A- 4—Executive Travel	1,138.57
A- 5—House Maintenance	7,171.22
A- 6—Treasurer	206.44
A- 6a—A.M.A. Dues Collection	253.50
A- 7—Finance and Budget Committee	18.33
A- 9—Audit	475.00
A-10—Secretary	2,998.12
A-11—Salary Taxes	707.01
A-12—Insurance	1,433.46
B- 2—Cuts	6.51
B- 5—Journal Office Expenses	358.18
B- 6—Journal Travel	5.78
C- 2—Welfare Committee	616.83
C- 3—Legislative Committee	2,137.22
C- 4—Public Health Committee	678.00
C- 5—Public Relations Committee	3,434.67
C- 6—Medical Practice Committee	374.78

D- 1—President	3,091.38
D- 2—A.M.A. Delegates	4,081.00
D- 3—Contributions	560.00
D- 8—Woman's Auxiliary	2,850.95
D-13—Medical Education Committee	6.60
D-16—Membership News Letter	2,072.73
D-18—Public Health Week	77.55
E- 1—Board of Trustees	912.05
E- 2—Contingent	5,646.39
E- 2a—Civil Medical Defense	374.63
E- 3—Emergency Educa. Camp. Com.	130.94
E- 4—Judicial Council	82.62
F- —Legal	1,790.74
	$ 92,068.19
Accounts Payable, May 31, 1950	7,914.62
Annual Meeting	2,241.76
Journal Publication	25,344.95
Commissions	3,358.33
Assessments Refunded—1950	60.00
Assessments Refunded—1951	453.00
A.M.A. Assessment—1949	350.00
A.M.A. Dues—1950	80,686.50
A.M.A. Dues—1951	75,107.00
Permanent Home Account	12,330.01
Budget Expenses—1949-50	851.58
Maternal Welfare Books	1,822.50
TOTAL DISBURSEMENTS	$302,588.44
Cash Balance, May 9, 1951	217,820.16
	$520,408.60

PERMANENT CAPITAL FUND

Cash	$ 3,565.25	
Investments	11,500.00	
Balance, May 9, 1951		$ 15,065.25

ANNUAL MEETING RESERVE

Balance, June 1, 1950	$ 4,779.82	
Receipts, June 1, 1950—		
May 9, 1951	11,360.00	
Total		$ 16,139.82
Disbursements, June 1, 1950—		
May 9, 1951		2,241.76
Balance, May 9, 1951		$ 13,898.06

PERMANENT HOME RESERVE

Balance, June 1, 1950	$32,831.92	
Receipts, June 1, 1950—		
May 9, 1951	856.50	
Total		$ 33,688.42
Disbursements, June 1, 1950—		
May 9, 1951		12,330.01
Balance, May 9, 1951		$ 21,358.41

SUPPLEMENTAL REPORT
FINANCE AND BUDGET COMMITTEE

REQUESTED BUDGET FOR 1951-52

A- 1—Executive Salaries	$ 38,620.00
A- 2—Executive Office Salaries	20,517.00
A- 3—Executive Office Expenses	2,500.00
A- 4—Executive Travel	1,600.00
A- 5—House Maintenance	7,200.00
A- 6—Treasurer	350.00
A- 7—Finance and Budget Committee	250.00
A- 9—Audit	350.00
A-10—Secretary	3,000.00
A-11—Salary Taxes	1,150.00
A-12—Insurance	1,280.00
B- 1—Journal Publication	5,000.00
B- 5—Journal Office Expenses	500.00
B- 6—Journal Travel	100.00
C- 2—Welfare Committee	750.00
C- 3—Legislative Committee	4,000.00
C- 4—Public Health Committee	1,000.00
C- 5—Public Relations Committee	5,000.00
C- 6—Medical Practice Committee	300.00
D- 1—President	3,000.00
D- 2—A.M.A. Delegates	6,000.00
D- 8—Woman's Auxiliary	2,600.00
D-13—Medical Education Committee	100.00
D-16—Membership News Letter	2,500.00
D-18—Physician Resources Committee	200.00
D-19—Civil Medical Defense Committee	500.00
E- 1—Board of Trustees	1,000.00
E- 2—Contingent	10,000.00
E- 3—Emergency Educational Camp.	5,000.00
E- 4—Judicial Council	500.00
F- —Legal	3,100.00
TOTAL REQUESTED BUDGET FOR 1951-1952	$127,967.00
RECOMMENDED PER CAPITA ASSESSMENT FOR 1952	$25.00

SUPPLEMENTARY REPORT
MEDICAL-SURGICAL PLAN OF NEW JERSEY

1. *Enrollment Growth of the Plan to April 30, 1951.*

The enrollment of Medical-Surgical Plan continues to increase at an impressive rate. The total enrollment on December 31, 1950, as reported in the published Annual Report of the Plan, was 499,882 persons.

This enrollment has increased during the first quarter of 1951, to 543,769, as of March 31, 1951. It has further increased to 552,251 as of April 30, 1951, according to a tentative report on that date.

Needless to say, our current rate of growth, averaging more than 650 persons per working day, produces a continuously expanding work load, quite apart from the effects of necessary changes in Plan procedures.

2. *Progress in Revision of Schedule of Benefits.*

Conferences with representative groups of the profession, looking toward the revision of the Schedule of Benefits, have now been virtually completed. Our conferences with the surgical and obstetrical groups and the anesthetists have been concluded, and an initial conference has been held with the officers of various medical groups to review the schedule of medical fees.

These conferences have had a three-fold purpose: first, to develop a schedule of benefits, in conformity with the new standard nomenclature and code approved by the American Medical Association and adopted by the Blue Shield Commission; second, to encourage and permit the profession to assist the Plan in developing a schedule of benefits of appropriate fee relationships; third, to acquaint the profession more intimately with the philosophy and the procedure of the Plan.

More than fifty representative physicians on a state-wide basis have taken part in these conferences, and we believe they have achieved the above described purposes. The recommendations of the various conference groups are presently under review by the Survey Committee and Board of Trustees of the Plan. While this review is not completed, sufficient progress has been made to enable us to state that the conference recommendations have been sympathetically received and considered. The new schedule of benefits and code of regulations is expected to be ready this summer and copy will be sent to all Participating Physicians.

3. *Questions Currently Under Consideration by the Plan.*

(a) Prenatal Care and Limited Payment for Maternity Services for "Left Group" and "Direct Enrollment" Subscribers. Reference has been made to this question in the printed Annual Report.

(b) New Non-Group Enrollment Offer. Medical-Surgical Plan is presently reviewing its experience with non-group enrollment, in an effort to determine what changes should be made in our present contract and rates prior to extending a new opportunity for non-group enrollment.

There is the strongest desire and intent to reoffer the opportunity for non-group enrollment at the earliest possible date, in accordance with sound underwriting principles.

(c) Enrollment of Participating Physicians. The number of Participating Physicians has shown an increase from 4708 a year ago to approximately 4730 at this date. Some Participating Physicians have resigned.

A study has been made of the reasons given by these physicians for their resignations. This information is being considered by the Plan in its current review of regulations and contract provisions. Where the reason for the resignation has related to Plan allowances for eligible services, this information has been considered in the course of Plan conferences with representative professional groups in preparing the new schedule of benefits.

4 *Office Plaque.*

We have distributed an office plaque or certificate to Participating Physicians. This distribution is currently about 90 per cent complete, and any Participating Physician who has not yet received his certificate may be assured that it will be sent him in the near future. In view of the rapid increase in subscriber enrollment, it is most desirable that every Participating Physician display this certificate. The new certificate contains the Plan's code number for each Participating Physician, and our new "Medical Service (claim) Report" provides for the inclusion of this number on each such report submitted to the Plan.

The cooperation of Participating Physicians in listing their code numbers on Service Reports will be greatly appreciated by the Plan.

5. *Claim Procedure.*

In the course of his monthly letters to the profession, the Medical Director has explained the disadvantages of the system of initiating and processing claims that was in use prior to April 1, 1951. The rationale of the change in claim procedure and the anticipated advantages of the new form and procedure have been set forth in detail. Any radical change is certain to involve a period of adjustment. Since April 1, 1951, the Plan has been processing an unprecedented volume of claims. First, there was the normal case load of claims for hospitalizations occurring or originating prior to April 1; secondly, there has been a large volume of claims pending, but incompletely identified, that had been originated through the old process. The Plan has applied the new forms and procedure to these old claims, in order to dispose of them. Finally, the current volume of claims has been temporarily but sharply augmented by the fact that new claims are being reported to the Plan earlier than they would have been reported under the old procedure. This period of adjustment to an unprecedented claim load should terminate about June 1. After that date, the Plan will be in a position to operate on a normal level of claim volume. Experience has already demonstrated that the new procedure will permit a greatly facilitated claim service. Once again, the Plan wishes to thank its Participating Physicians for their continued cooperation.

ANNUAL REPORT
COMMITTEE ON MEDICAL DEFENSE AND INSURANCE

Professional Liability Insurance

The Medical Defense and Insurance Committee held three meetings during the year 1950 to 1951, all members having been present. We are proud to report that the number of members insured under our special liability contract of The Medical Society of New Jersey has now reached 4108, representing a very high ratio of the total members of the Society.

The ratio of claims reported per members insured is the same as in the previous year. A survey of these claims obtained from the Company's experience records would indicate a higher cost of litigation and a marked increase in reserves held for cases in process of settlements.

It may be of interest to present a break-down of the type of cases that have been reported for the year 1950 to 1951: radium burns 1, x-ray burns 4, diathermy burns 3, other burns 3, anesthesia including spinal 5, broken needles 1, injections 4, commitments 3, improper set fractures 5, fractures 2, tonsillectomies 1, allergy injections 1, property damage 2, miscellaneous 21. Our total claims numbering ninety-nine have been reported from the following counties: Essex 29, Passaic 16, Middlesex 9, Bergen 5, Union 2, Monmouth 6, Morris 4, Sussex 8, Hudson 12, Mercer 6, Atlantic 3, Cumberland 2, Salem 2, and Camden 1.

Your Committee has repeatedly urged our membership to secure adequate professional liability protection. We find that 40 per cent of those insured are still carrying the minimum indemnity of $10,000/$30,000. We are constantly faced with suits in which doctors are not sufficiently protected by insurance even though higher limits are available at small cost. These doctors are confronted with personal financial loss in the event of a judgment in excess of their policy limits. We are living in an inflationary period, claims are higher, judgments will be higher and the expense of defense as stated above is almost double. The Committee is unanimous in its opinion that this portion of our report in connection with increased limits of protection should reach every insured doctor and in order to promptly transmit this information your Committee recommends that they be authorized to instruct our Official Broker, Faulhaber & Heard, Inc., to attach a memorandum to all renewal notices.

The Committee does not anticipate any increase in premium rates for the ensuing year. The preservation of this low cost of protection depends upon many factors which make it impossible to prognosticate the future developments for any prolonged period.

The services of our Official Broker have contributed much to the growth and success of our Insurance Plan. Their records and other data relative to our many problems developed through personal contacts have enabled them to present valuable information for the benefit of the Committee and the profession as a whole. Your Committee recommends that the services of Faulhaber & Heard, Inc., be renewed for the ensuing year.

Your Committee takes this opportunity to notify our respective County Defense Committees that we have valuable accumulated data, which we would be pleased to make available to them wherever local problems are presented. We are deeply conscious of the cooperative spirit displayed by our County Committees which has contributed much in the solution of mutual problems in the conduct of our Medical Defense Program.

Accident and Health Insurance

As of March 1, 1951, there were 2784 members insured under our Accident and Health Insurance program with the National Casualty Company. During 1950 the Company paid in claims to our members in excess of $101,000, to 275 policy holders, with claims still running on 53 of them. At the last Annual Meeting, the State Society approved the Company's offer of increasing the maximum limit of coverage for insurable risks from $400 monthly benefit to $600 monthly benefit, thus increasing the amount of monthly benefit to impaired risks from the previous limit of $200 monthly benefit and $2000 of accidental death indemnity to $300 monthly benefit and $2000 of accidental death indemnity.

The official enrollment to put this extension of coverage into effect was conducted by the Insurance Representatives, E. and W. Blanksteen of Jersey City, during the thirty day period, just ended, April 2, 1951, to May 2, 1951. This enrollment was overwhelmingly successful in that 463 more doctors filed applications to join the Accident and Health Insurance program and more than 785 of the existing policy holders filed applications for increases of coverage. These applications flooded the insurance office and it will necessarily be several weeks before all the cases are processed and new policies issued.

The Committee on Medical Defense and Insurance is pleased with this increased spread because the greater the spread the safer the program. The increased spread in the volume of policy holders is necessary to support the higher limits of indemnity granted to the non-selective risks and the extended coverage under the health provision of the policy, which the Company voluntarily extended from one year of sickness coverage to two years of sickness coverage, without additional premium, on November 23, 1949, and the value of this extension of coverage is now being made apparent in some of the Company's cases now running into the second year of disability.

We are very happy to have been informed by our Accident and Health Insurance Representatives, E. and W. Blanksteen of Jersey City, that their volume of professional disability policies, not only with their professional societies in this State, but in other states in the East and on the West coast, comprising more than 22,000 professional policy holders, is now considered by the Company as "pool" business, thus strengthening our individual accident and health insurance program. We are pooled for example with such groups as the New

Jersey State Dental Society, the very large Medical Society of the County of New York, the Bronx County Medical Society, the Westchester County Medical Society, the Medical Society of the County of Queens and with the tremendous membership of the Dental Society of the State of New York, as well as many others.

Our Accident and Health Insurance Program with the National Casualty Company, as many of you know, has not been a static plan through the years that they have served us. It has been constantly improved by the Company in cooperation with E. and W. Blanksteen and your Committee takes pride in the fact that our Accident and Health Insurance Plan is considered as one of the broadest for its low cost in the country today.

We have investigated the financial standing of both the U. S. Fidelity and Guaranty Company and the National Casualty Company and found their classifications to be as A-1. Our working relationship with these Companies has been of a high degree of cooperation and confidence. We would, therefore, recommend the renewal of our contractual relationship with the U. S. Fidelity and Guaranty Company and the National Casualty Company for the ensuing year.

J. W. Hurff, M.D., Chairman

ANNUAL REPORT OF THE MEDICAL EDUCATION COMMITTEE

Your Committee on Medical Education, during the past year, has carried out its usual functions. However, it has become increasingly apparent during the past several years, that Postgraduate Medical Education requires the full time of a Medical Educator.

The Committee explored the possibilities of setting up such an arrangement and found that many States, Pennsylvania and Michigan, amongst others, spend from twenty to thirty thousand dollars a year in Postgraduate Medical Education. To obtain this amount of money from the State Society would cause a prohibitive increase in assessment. Other channels were explored and during the past year it developed that philanthropists outside the Medical Profession were also interested in Postgraduate Medical Education. These channels have been explored and arrangements are being made, with the approval of the Board of Trustees, to finance a Postgraduate Medical Education program during the next five years.

We hope that within a few months a successful conclusion may be reported.

F. M. Clarke, M.D., Chairman

WOMAN'S AUXILIARY PROGRAM FOR 1951-1952

1. Assistance to the Medical Society in its program and health measures.
2. Continue to be well-informed and alert on all medical legislation.
3. Public relations, particularly stressing the problems of the chronically ill.
4. Civil defense.
5. Stimulate nurse recruitment.
6. Promote Auxiliary sponsored programs.
7. Obtain subscriptions for the *Bulletin*.
8. Publicize and secure subscriptions to *Today's Health*.
9. Interest the public in the Medical-Surgical Plan of New Jersey.
10. Membership goal of 100 per cent in county auxiliaries.
11. Greater use of membership participation.
12. Continue to contact individual members through the New Jersey *News-Note*.

SUPPLEMENTARY REPORT COMMITTEE ON LEGISLATION

The State Legislature concluded its session and passed no bills to which we were opposed.

A-1, the Public Health Unit bill, was passed without our approval; but we have favored the major provisions of this legislation for years. The bill can be strengthened by amendment. Our job should be to keep a close eye on its activeness and to push for its acceptance at the local level. This means work in each county and continuing support by the doctors personally, as well as the help of the Woman's Auxiliary.

A-17, the so-called Welfare Bill, did not pass. A compromise was reached whereby a commission is established to perfect such legislation another time and to enable the state to receive presently a somewhat reduced Federal subsidy ($600,000 as against $2,000,000).

The chiropractic, chiropody, and the psychology bills did not pass, but will unquestionably come up again next year.

A-331, granting special privileges for admission to examination for medical licensure was defeated, but not easily. It passed in the Assembly, despite our vigorous opposition, but was defeated in the Senate. Special comment will come up before the House of Delegates concerning the support which was given this bill by some of our members individually, despite official action of their county medical societies against it.

C. B. Blaisdell, M.D., Chairman

ANNUAL REPORT
ADVISORY COMMITTEE ON HOSPITAL RELATIONSHIPS

This year the chief concern of the Committee on Hospital Relationships has centered upon the problem of hospital corporate practice. Two surveys were conducted in an attempt to clarify the present hospital-physician relationship with respect to pathologists, radiologists, anesthetists, and physical therapists who are regularly employed in hospital departments.

In consequence of the results of those surveys, your Committee on Hospital Relationships has made the following recommendations:

1. That hospital staff radiologists establish, at local level, compensation based on a percentage of the income of the radiology departments of that hospital. We do *not* recommend the employment by hospitals of radiologists on a salary basis alone.

2. That physician anesthetists be recompensed on a fee for service basis. In certain circumstances, the salary plus a percentage of departmental income is approved.

3. That pathologists be recompensed on a fee for service basis. In certain circumstances, the salary plus percentage of departmental income is approved. We do *not* recommend the employment by hospitals of pathologists on a salary basis alone.

4. That physiatrists be recompensed on a basis which shall include a percentage of the income of the department of physical medicine. We do *not* recommend the employment by hospitals of physiatrists on a salary basis alone.

5. That the employment by hospitals of physician-specialists on a salary basis alone be discouraged.

These recommendations are made to discourage the employment of physicians by corporate bodies, regardless of how organized or described.

F. M. HOFFMAN, M.D., Chairman

ANNUAL REPORT
ADVISORY COMMITTEE ON WORKMEN'S COMPENSATION AND INDUSTRIAL HEALTH

The Advisory Committee on Workmen's Compensation and Industrial Health, as a result of its deliberations in the course of the year, makes the following recommendations:

That the work done by plant hospitals be limited to true traumatic cases incurred at the plant of the employer.

That in acute medical emergencies arising on the premises, first aid be given only under standing orders posted by the plant physician and that the patient be referred back to the family physician for follow-up treatment.

That plant nurses give treatment only on the basis of standing orders issued by the plant physician. We thoroughly disapprove of the general practice of medicine by plant hospitals except under the above circumstances.

That in cases where neither the records nor the proceedings mentioned the basis for neurological findings or any other unwarranted findings, the making of consolation disability awards be disapproved.

That in fracture cases where there are no objective findings or permanent loss of function, the making of disability awards be disapproved.*

That the making of permanent awards until a period of at least six months is past from the date of injury, or the maximum disability has been reached, be disapproved.*

That the Department of Labor be urged vigorously to prosecute cases in which false statements are made under oath.

That general approval be given to part 3 of the recommendations of the State Chamber of Commerce: "The Workmen's Compensation Law states that an injury to be compensable must 'arise out of' employment. It is important that claims be carefully examined to assure that this qualification is met. (Unfortunately, of late it would appear that such has not been the case.) Particularly is this true since the advent of the Temporary Disability Benefits Law in New Jersey, under which workers are entitled to benefits for injuries not compensable under Workmen's Compensation. Unless this qualification is strictly observed it will result in the Temporary Disability Benefits program's receiving a hidden subsidy."*

The Advisory Committee on Workmen's Compensation held a special meeting with the Commissioner of Labor in an attempt to improve the functioning of the New Jersey Compensation Law. New impetus was given to the activities of this Committee as a result of this meeting, and in consequence we hope to be of still greater help to our medical men who do industrial medicine.

W. K. HARRYMAN, M.D., Chairman

ADDITIONAL NOMINATIONS FOR EMERITUS MEMBERSHIP

MORRIS COUNTY

Nicholas Falvello, Wade County, Florida; age 68; retired because of ill health; county member since 1928; member in good standing.

Henry Rubin, Florida; age 68; retired because of ill health; county member since 1925; member in good standing.

* Referred back for further study and clarification.

GENERAL SESSION

May 15, 1951

The General Session of The Medical Society of New Jersey convened in the Haddon Hall, Atlantic City, New Jersey, at 8:40 p. m., Dr. Andrew F. McBride, Jr., Moderator.

PRESIDENT CROWE: Ladies and Gentlemen: As President of The Medical Society of New Jersey, it is a great pleasure to welcome you to this meeting on Civil Medical Defense. This meeting is presented as a public service by The Medical Society of New Jersey. We have an outstanding panel of speakers.

Dr. Andrew McBride of Paterson, distinguished son of a distinguished father, will act as moderator. Dr. McBride has given a tremendous amount of his time and energy, as Chairman of the Society's Committee on Civil Medical Defense, to the State Organization of Civilian Defense.

It is my privilege to present to you Dr. Andrew McBride, Jr. (Applause)

DR. ANDREW F. MCBRIDE: Ladies and Gentlemen: As Dr. Crowe has said, The Medical Society of New Jersey is presenting this program as a public service. The panel is so distinguished that the only introduction I need dwell on is my own.

Some several years ago Dr. Schaaf appointed me as Chairman of the Committee on Medical Emergencies. This Committee did very little from year to year until last year when the Korean situation broke out. Since that time it has become a very important committee. We have cooperated with the authorities of the state of New Jersey and offered our services to them.

The Director of Civil Defense of the state of New Jersey is Mr. Leonard Dreyfuss. He could not be here this evening and he has sent his Deputy, Mr. Thomas Dignan.

I will introduce each member of the panel to you and have him speak to you in a general way about his own phase of the problem. At the end of that time I will direct some specific questions to the members of the panel myself. Following that I will throw the meeting open to the general public here and ask you to address questions to the panel. When you do address questions to the panel I would like you to identify yourself, and if from the Medical Society, the county from which you come. Please direct your questions specifically to some one member of the panel.

The first speaker is the representative of the government of the state of New Jersey, Mr. Thomas Dignan.

I am unable to give you his biography except to say that the last time that I saw him, some years ago, he was a very fine fullback. His interests evidently became broader since that time. Mr. Thomas Dignan. (Applause)

MR. DIGNAN: Dr. McBride, Members of the Panel, Ladies and Gentlemen: Before I briefly outline the Civil Defense Program of New Jersey, I would like to ask a question and perhaps answer it very quickly.

Why do we have to have a Civil Defense? Last week in Washington at the National Conference of State Directors I heard a top ranking military man state that, as far as the military was concerned, Civil Defense was the fourth branch of the service. The Army, Navy and the Air Force could not get along without Civil Defense in any war that we might have in the future.

During the last war we bombed Germany many times and the Germans bombed England. It it had not been for the English and their civil defense there wouldn't be any England today and perhaps we would still be fighting the last war.

There is no such thing as a front line today. The civil population must support the services. The weapons necessary to fight these wars come from us who are in our cities here in New Jersey and other places in the United States.

We know Russia has the atom bomb. We know that they are stockpiling it. We know that they have over five hundred large bombers equal to our B-36s. They have Siberian bases from which they could reach our industrial centers. We know our own capabilities. And guided missiles, or, if you will have it, uninhabited aircraft could be launched from submarines. Knowing these things, Civil Defense is vital.

One other thing on that score. The Russians have about 300 divisions of men under arms; we have 12. Of the 300, there are some 75 combat divisions. When I say that I mean 40 per cent of them have seen combat service. We have six. Now, that isn't so important as the fact that the soldier is a consumer, not a producer. It takes twenty to thirty men and women in the civil population to support one man in the field.

Hannibal, Caesar, Napoleon, Hitler all had armies. They couldn't control them because they wouldn't last long if they had to hold them on a peacetime basis. It is said by experts that the Russian army can be held at a peacetime basis for only six years. That, to my

mind, makes good sense why we should have Civil Defense.

Our organization in New Jersey was started before 1942, but the law was passed in 1942 and amended in 1948. It gives the Governor extraordinary powers and sets up a Division of Civil Defense and a Department of Defense. This law made it necessary for every municipality in the state to have a local Civil Defense Council.

We have divided the state into four districts and sub-divided it into thirteen areas. Each district has a District Director and each area has its Director. Each district and area have a full staff—medical, police, fire, transportation, and so on. The chain of command according to law goes from the State Director to the District, to the area, to the local director.

We have a very small organization on the State level. Most of our work has to be done by committees of private citizens and by the departments of state government. If it weren't for these departments and the help that they have given to Civil Defense we wouldn't have Civil Defense; for example, your medical and health program in Civil Defense.

Colonel Schoeffel, who is the head of our police, has already run twelve schools for instructors throughout the state. We have already trained some twelve hundred instructors to go back and teach auxiliaries how to be policemen. That is the way we have to work.

At present, 165,000 citizens of New Jersey are actively working in Civil Defense. I know because I have issued identification cards to them. We want 350,000 to 400,000. We have a long way to go. We need more training, we need more recruits, and believe me, it isn't costing us too much time and effort. We are not spending very much money. But with the conditions as they are, civil preparation and organization is the cheapest insurance I know of to save our own lives. (Applause)

THE MODERATOR: Thank you, Mr. Dignan.

As Mr. Dignan has indicated to you, the manner in which this program has been carried out has been through a definite and specific law. The Director of Civil Defense is carrying out the details of the plan through a technical advisory committee.

Among the members of the technical advisory committee has been a man who has been concerned with the medical and health aspects of that program. He has devoted, a very great deal of time to this project. I dwell on this aspect of the matter because there has been a certain understandable restlessness on the part of many to get going on this plan.

The man who will speak next had a different idea about this thing. He felt that the best method of proceeding was to make a careful plan first and then implement that plan and make it functional.

I next introduce Dr. Daniel Bergsma, Commissioner of Health of the State of New Jersey and the Chairman of the Medical and Health Preparedness Committee of the Civil Defense Program. Dr. Bergsma. (Applause)

DR. BERGSMA: Thank you Mr. Chairman.

Members of the Panel, Ladies and Gentlemen: One atomic bomb might cause three times as many casualties as we have general hospital beds in this state. This rather startling possibility results principally from two factors associated with an A-bomb burst. One is the extremely high temperature which may cause the equivalent of very severe sunburning or radiant burns to exposed persons more than a mile and a half away.

The second factor relates to pressures and wind speeds. Wind speeds of some 800 miles an hour may occur at a thousand feet from the ground zero. The wind speed may be as high as 200 miles an hour a mile away. Clearly such wind speeds can tip cars over and cause a tremendous amount of flying debris. Most of the casualties will result from burns and from lacerations and contusions resulting from shattered flying glass and other debris.

A great deal can be done to reduce the number of casualties. If we can somehow influence all of our citizens to take cover very promptly on a red alert or at the moment of an A-bomb burst, which is a surprise, it should be possible to reduce the number of casualties up to possibly fifty per cent.

If we could have at least one member of every family in this state thoroughly trained in first-aid, that, too, would provide a great deal of help to many of the casualties at the time of an emergency. It would be a help to those who were hurt. It would be a help to those who were assisting, because it would tend to keep them from becoming hysterical or apathetic under the emotional strain which otherwise would exist.

That in turn should be backed up by well organized first-aid medical teams, by well organized surgical, burn, shock and other teams. There is a tremendous logistic problem of dealing with so many casualties in so confined an area in the presence of so much destruction. One must also remember that the estimates are that about twenty minutes after the explosion, when the wind direction shifts and reverses itself, that new wind speeds of perhaps thirty or forty miles an hour will prevail for a period of four or five hours. Accordingly, all

of this first-aid rescue work must be done under very difficult conditions.

In the short time available it is only possible to discuss the high spots, to generalize and, in fact, to over-simplify.

May I briefly call your attention to the problem of biologic defense. This might involve sabotage or open biologic warfare. It might be a direct attack upon human beings; it might be indirectly through animals and, conceivably, through plants.

In connection with this we are anxious that physicians generally report all communicable diseases promptly. In fact we would like to have them go further than that. We would like to have them report even tentative diagnoses if they have questionable situations which might be related to biologic warfare.

We are prepared with an epidemiologic team to assist in special situations. We have a mechanism to detect areas of special trouble on a non-specific basis, but nonetheless on the basis of comparison with norms. Certain statistical services will be needed and special laboratory services to examine unknown substances which might be viral or echisial in character.

We do not believe at this time that there should be mass immunization of the entire population, but we certainly strongly recommend that children be promptly immunized against whooping cough, diphtheria, tetanus and small-pox; and that they be given booster doses at the age of about five before going to school.

It would be wise if all adults who were about to do very much traveling or vacationing be immunized against typhoid and tetanus; and in the judgment of the physician, possibly for other diseases, depending upon the area to which they would go. This would add to their personal protection under those circumstances and actually it would add a measure of additional protection to them in case of civil defense emergency.

We know about chemical warfare in the last war. We must consider theoretically the possibility of the use of "nerve gas" in addition to those commonly talked about in the last war.

We know about the new problems related to radiologic defense, either associated with an A-bomb burst or with the spread of radioactive substances. Here one needs specially trained individuals who are specially equipped.

In this state we have already had some five hundred individuals trained in physics and chemistry and who are doing that kind of work in factories or are teaching special courses. We are designing additional curricula for advanced training. Equipment has also been ordered for purposes of mass training of these special groups.

Psychological warfare will be used against us again. It is very important to maintain morale, especially under emergency conditions. A person who becomes hysterical or apathetic or hyperactive is just as much a casualty as another injured patient. Instead of being a help in the hour of great need, such an individual becomes another casualty. This must be avoided if at all possible. Many things can be done in the area of psychological defense if a proper plan is used.

The whole question of identification is a rather complex and a very important subject. Every physician recognizes the importance of recording certain information about each patient as he is hospitalized for an operation or otherwise. If one conceives for just a moment of mass casualties of all grades, one can appreciate the great need for accurate previous identification.

The total field involves the questions of water safety, of food, milk and drug safety and the special problem of sewage disposal under emergency conditions when sewage trunk lines may have been broken. One cannot forget general sanitation. We must consider the problem of rat and insect control. If we allow the populations of rats and certain insects to rise too high, they might actually be used against us in biologic warfare.

Great numbers of committees, including physicians, nurses, pharmacists and many others worked very long and very hard and very successfully to analyze the facts and to devise collectively a recommended plan. This plan is in the hands of the printer and it will be available to you fairly soon. (Applause)

THE MODERATOR: Thank you, Dr. Bergsma.

As Dr. Bergsma has indicated to you, the proportions of an atomic blast are beyond anything that we have previously encountered. The best guide to the manner of handling such an affair comes from the experiences in previous wars and in large civilian disasters.

The next speaker has had a good deal of experience in both of these fields. He was consultant in one of the large theaters of war during the past war. He is Professor of Preventive Medicine at the Johns Hopkins University Medical School. He is Dr. Perrin H. Long, who is here representing the Council on National Emergency Medical Service of the American Medical Association. Dr. Long. (Applause)

DR. LONG: Dr. McBride, Members of the Panel, Ladies and Gentlemen: I may be here representing the Council on National Emergency Medical Service of the A.M.A., but I

want you all to understand that the opinions that I express tonight are my own.

One of the most important things that one can try to impress upon people is if we ever have to go to bat in civil defense it means we are in war.

People don't go to war without accepting losses. One of the things that would be best for the people to realize is that if we have to use civil defense actively it means that we will have losses. We will probably have large losses, and we have got to accept them because if we don't the morale of the country will go to pieces very promptly.

We can sit here tonight and we accept our losses in Korea; we accepted our losses in World War Two and World War One. We've got to get to the point in our philosophy that if we are in war again we will probably have to accept losses among our civilian population.

General Vandenberg said that if an attacker in force—and there is only one country that would want to attack us: that's Russia—really wanted to come over here, probably seventy per cent of her planes would get through despite the best of our radar and interceptor service. So we might as well make up our minds that if war comes, we are going to be attacked.

What I want to talk about tonight are some of the problems of local planning and logistics. By logistics we mean how do we get the personnel, supplies, the equipment and everything to where it is going to be needed in relation to the medical aspects of civil defense. While I will dwell on planning and logistics in relation to its medical aspects, there is just as great a need for planning and logistics in fire, communications, transportation and every other service. No one service can plan in a compartmentalized fashion by itself because no matter how well it plans it is going to fall flat on its face if the general planning of all the various services is not well coordinated between the services and perfectly understood.

Regardless of the expected type of disaster, any city, whether it thinks it is in a strategic area or non-strategic area, has to have local plans which will deal roughly with three types of disaster. One is a small disaster in which the local hospitals and most of the local facilitie are not over-taxed.

That is the kind I hope we will have in Baltimore because despite the fact that we have Bethlehem Steel and shipbuilding and other organizations—if I were Mr. Stalin I would say: Oh, to hell with Baltimore. I'd rather try to drop something on Washington. So Baltimore will be a secondary target. So we might have a little disaster and Johns Hopkins Hospital with its planning for ten thousand beds will probably be able to take care of what might happen there, because we might get a few high explosives, maybe a fire bomb or something like that, but they would be going after the seat of the government.

It has always been the aim of politicians to destroy the seat of the other fellow's government. I never understood why that is so important, but it is something that looms large in their mind.

Then again maybe it will be an awfully cloudy day and maybe something will go wrong on the Washington strike and so they will drop something large in Baltimore. So we are planning also what we are going to do if our main facilities for taking care of people are damaged, destroyed or put out of commission. So you have to plan for an incident in which your major medical facilities are out of commission.

Then every community, large and small, has to plan accurately so that they can drop things at a moment's notice and go to the aid of any other community which is stricken, which needs help under what we may call multi-aid pacts or mutual assistance pacts.

As an individual who has assisted in a minor degree in planning several operations in North Africa and Italy but got a good look into the inside of the planning of all those operations, it seems to me that one of the most necessary things in local planning is coordination. Everything must be coordinated. You cannot have one group planning without complete reference to other groups.

And you must coordinate in relation to fire, police, communications, transportation, welfare, and also I stress continuously—although I have been beaten down on this by a number of people—with the nearest army, air force or navy outfit. One unfortunate fellow let drop to me not very long ago that if government property was damaged or seriously impaired they might move in. So that I think you better find out what your Governer is going to do in regards to moving in, and the next Governor and the Governor after that maybe, and also what your shifting commanders in air force, army and navy installations will do, because you want to make sure that everything is coordinated with them as well.

Then another thing that is extremely important is sighting non-medical installations. I'd like Baltimore to know that in every fourth city block or maybe more often in certain parts of the town that there was a place picked out, and on the map, where everybody would know about it, that was going to be an air station. If we have one in every four city blocks in Baltimore then we could put an overlay on a map. With any type of disaster you could tell which

aid stations were knocked out and which were intact.

Also, it isn't only aid stations that are your collecting points; it's where you are going to hospitalize your first cases; it's where you are going to hospitalize your light and your seriously wounded. All those must be picked out in advance and coordinated. The other day I found out that one of our big evacuation places in Maryland had been earmarked by the Red Cross for evacuation of population. There had been no coordination between the medical or the welfare aspects.

This business of sighting your installations must be related to lines of transportation, too. You've got to find out from your police what roads they are going to let you doctors use for evacuating wounded, injured. These things all have to be done in advance. It is too late to do it after the incident.

Then you want to figure out how many casualties there will be no matter where the blast or incident occurs. You get your 6 p. m. to 6 a. m. population and your 6 a. m. to 6 p. m. population in any area; 8 to 8 will probably be better. In that way it is obvious if something dropped downtown in Baltimore at night there would be relatively few casualties; but if it came at three o'clock in the afternoon, which might be the favorite time of bombing Baltimore, then it would destroy our doctors on Calvert and St. Paul Streets in the Professional Building. It makes it a much tougher job, you see, there; a lot more people would be injured. We tested it. You can tell within a few hundred through a few thousands how many are injured if something drops in any place in Baltimore because you just put your map overlay on the place indicated.

Then you've got to have all your plans set and coordinated for evacuating these wounded. You can't keep all those injured in Baltimore; you've got to take them outside.

I am not willing to say how many are going to be injured by any type of raid on Baltimore. When I was younger at this game I used to try to frighten people and also the doctors into thinking of how many injured people they'd have to take care of; but the more I thought about it, the more I studied what happened in Hiroshima and Nagasaki the less willing I am to say much about that except for the thing that interested me: there are not very many seriously injured left after an atomic blast because if you can't run out of the badly damaged area on your own two legs, you are going to be burned to death; so there isn't much use worrying about it.

Identification of the wounded and of the dead is one of the most important things. People don't realize how important it is to know where they are and who is dead, who is not dead, who is injured, who is alive. But from the point of view of morale, from the point of view of future insurance claims, and even from the point of view of where are our recent husbands and wives who may turn up later, it is important to know what has happened during that period.

The identification of Civil Defense personnel is a vital matter. Mr. Dignan spoke about issuing 185,000 identification cards, and somebody told me we sent out so many thousand in Maryland the other day. We can't all be running around like an F. B. I. agent, opening our pocketbook and saying "I'm a member of Civil Defense in Oakland, Maryland". We've got to have something to identify us. Suppose some Army commander lost his head; maybe he declared martial law. If you didn't have your Civil Defense personnel recognizable, they wouldn't be able to get in to do anything; they might be kept out.

Who is going to provide the food? It's all right to talk about coffee and doughnuts and limp lettuce sandwiches; but this isn't feeding a troop train that's coming in, and this isn't feeding four hundred displaced persons from Yugoslavia. This is a matter of feeding possibly hundreds of thousands of evacuees and forty or fifty thousand doctors and auxiliary personnel as well as policemen, firemen and everybody else, because if people go hungry for twenty-four hours they can't work very well. So pure water and some kind of food must be made available. That's not the doctors' business, though.

The thing that has got me stumped is, where and how are we going to get medical supplies to the area? Where are they going to come from? You are not going to be able to go to the drug store and get a pair of rubber gloves or a $4.80 bottle of aureomycin or terramycin. What should we do on supplies?

I am throwing this gently to Dr. Kiefer on my right. He is an old friend of mine. I have thought, personally, as far as Maryland is concerned, where I could scream and shout about it, that for the time being we should buy nondeteriorating first-aid supplies, if the citizens of the State want to spend any money, say a two million dollar bond issue that they could authorize. Then let's wait and see about deteriorating supplies, because once you have five hundred thousand dollars' worth of supplies you don't want them to deteriorate, you want them to be guarded. Some one's got to guard them so that nobody tries to sell them. And they've got to be kept up to date all the time.

States and cities shouldn't go hog-wild in buying this and buying that because they could

wreck the whole medical supply system within a month if every state in the country went out buying its own supplies; then no one would have any supplies. And what we can do about making available disaster supplies I think rests in Dr. Kiefer's hands and not so much in the hands of cities or smaller units within a state. Thank you. (Applause)

THE MODERATOR: Thank you Dr. Long.

It seems to me that Dr. Long has given us two very important bits of information tonight. One is that the enemy is going to attack Washington, and the other is that if they do attack the Federal Government, then the Federal Government will do something very important in our assistance. (Laughter)

We are very fortunate in having a man here who represents the Federal Government before it is bombed in Washington. He is in a position to give us the attitude of the Federal Government on the states and smaller sections of the country with regard to Civil Defense.

I would like to introduce to you Dr. Norvin C. Kiefer, from the Federal Civil Defense Administration. Dr. Kiefer. (Applause)

DR. NORVIN C. KIEFER: Dr. McBride, Members of the Panel, Ladies and Gentlemen: First of all I think I should inform Dr. Long that in recent staff exercises which had been held in the Civil Defense Staff College, the City of Baltimore had been used as our example of the target area. (Laughter). I should like to give you a series of five assumptions with the suggestion that you consider them with relationship to the discussion to follow and also in your subsequent planning.

They are as follows: *First,* Russia has the planes and the bombs to deliver an atomic attack in force on a dozen or more American cities at any time. One week ago the President of the United States made this statement: "Remember this: If we do have another world war it will be an atomic war. We could expect many atomic bombs to be dropped on American cities."

The *second* assumption is, that even after our air defense system is further developed, seventy per cent of attacking planes could get through. We could not stop these attacks.

The *third* assumption is that if an attack came tomorrow we would have perhaps a few minutes' warning. After our air raid warning system is better developed, we may have as much as a maximum of half an hour.

Fourth, one atom bomb can cause tens or even hundreds of thousands of casualties. The first atom bomb caused some 180,000 living and dead casualties in Hiroshima. By multiplying this factor by the number of American cities which can be attacked, I think it is obvious that millions of casualties could occur.

Fifth, the atomic bomb is not the only peril faced by American civilians. High explosive and incendiary bombs must be considered. Incendiary bombs took tolls of human lives that in some cases, as at Hamburg and Tokyo, were just as frightful as the destruction of human life at Hiroshima and Nagasaki from atomic bombs. And I don't know whether our enemies might use biologic warfare against us. But it is an entirely feasible weapon against animals, plants or people. We must also consider chemical warfare. I am referring almost entirely to "nerve gas". This produces damage within a relatively limited area, but the fatality rate within that area is extremely great and a large number of such areas can easily be created.

Without sufficient Federal, state and local appropriations we are not going to have surgical supplies beyond the first few hours following a major disaster. We are not going to have antibiotics and certain other essential drugs — biologic and chemical preparations for prophylaxis and treatment associated with biologic warfare; atropine and trimethodinon, nor heavy duty nor light disposable gas masks for chemical warfare; radiologic monitoring instruments of any of the three major categories; the heavy duty survey type of instrument, the low intensity Geiger counter type of instrument, or the pocket, personal dosimeter; and finally we are not going to have blood or plasma. There is no Civil Defense stock of plasma and there isn't going to be any Civil Defense stock of plasma for at least nine months after appropriations are made for that purpose, in order to increase the current and existing plasma processing facilities and blood collecting facilities.

The second major type of problem relates to hospital and first-aid systems. We have used in our manual an example of 120,000 casualties occurring in a city, with the estimate that some 50,000 would need hospitalization. In the average city of one-half to a million people, if the capacity of the hospitals which survive the disaster could be trebled, we would have less than 12,000 beds, on the average, for 50,000 casualties.

This emphasizes the need not only for plans to increase bed capacity, but also for detailed plans for improvised hospitals and school buildings and similar structures, and for thorough arrangements for the use of existing and improvised hospitals in nearby towns and cities.

The third type of problem relates to personnel. Within an area near the disaster it would be impossible to obtain sufficient numbers of professional and technical personnel. Dr. Long has made this even worse, and I cer-

tainly agree with him, by suggesting that at certain times of the day you would lose most of those that you do have.

It therefore is mandatory that we have an effective organization for immediate mobilization and transportation of large numbers of professional and technical personnel particularly as affiliated hospital units of surgical and medical teams. Also we are going to have to train other professional people—dentists, veterinarian and so on—to do things that they don't ordinarily do, so that they may serve as assistant physicians; and finally we are going to have to train lay people to work as auxiliaries.

Dr. Bergsma has mentioned the need for strengthening the public health system not only for administrative purposes but for biologic warfare and the control of communicable diseases, water and sewerage sanitation, food and milk sanitation, and similar extremely important items.

Dr. Long has also touched upon another subject, on which we are working at the present time, and that is the development of medical regulating services. They are indispensable. Without them, no matter how carefully the rest of the plans are formulated, the whole program will break down—such things as the assignment of all health personnel, according to preconceived but elastic plans; assignment of the positions of any mobile first-aid stations; the movement and transportation of professional and technical health personnel especially those coming in from the outside; receiving and distributing the huge amounts of supplies that will be needed; and the transportation and evacuation of medical casualties and other medical evacuees. These problems we must solve.

The official program certainly cannot possibly succeed without the wholehearted cooperation and the backing of professional people as individuals or through their professional organizations. You people are the substance, the real strength of Civil Defense. You must team up with your Civil Defense officials and you must work together through your professional organizations and hospitals and similar institutions.

There is no easy way to an adequate Civil Defense program. It is going to take hard work and sacrifice, sacrifice of time, effort and even money on the part of every one of you. You can't do this by appointing a committee. Everyone has got to get in and pitch. What is the alternative? Well, I can't predict, and I don't suppose anyone else can, when and if, World War Three might come. But if it does come, we know that American cities and civilians will be devastatingly attacked and we must have a Civil Defense program.

Civil Defense is not born overnight. Depending upon the present status of your plans, it will take from one to three years more before any of you have a truly adequate Civil Defense program. Are you willing to gamble when this means gambling with our national security, our very way of life which is threatened today as it never has been before in our national history? This is largely a rhetorical question. I am certain your answer is No. I am sure that the members of The New Jersey Medical Society and all other professional persons and their local, state and national professional organizations will get back of this Civil Defense program with us and make it a success. Thank you. (Applause)

THE MODERATOR: Thank you Dr. Kiefer.

I am sure after listening to Dr. Kiefer that we all hope that if this atomic attack comes it will come on a Thursday afternoon when all doctors are on the golf course. (Laughter)

I would like to direct my first question to Mr. Dignan and ask him something about the relationship of voluntary organizations, such as The Medical Society of New Jersey, to the Civil Medical Defense Plan. Mr. Dignan.

MR. DIGNAN: According to the law, the only organizations set up for Civil Defense in the state are in municipalities in the State area and district organizations. We need the help of all the societies, the Medical Society and other organizations in the state to promote and ask their members to join Civil Defense mainly on the local level because Civil Defense is a local problem; it is an individual, a family and a community problem. If we could get all the municipalities in this state and all the other states organized properly, with inventories of manpower, equipment and so on, I don't think we'd have to worry too much about Civil Defense.

THE MODERATOR: Thank you, Mr. Dignan.

As you have heard two of the speakers say, this program is going to require extensive financing. I would like to ask Dr. Long what is his own personal conviction as to the responsibility on the Federal, state and municipal levels for the financing of the various Civil Defense programs. Dr. Long.

DR. LONG: I can best answer that on the basis of what we are doing in Maryland. Maryland isn't as wealthy a state as New Jersey. In a small, poor state like Maryland, the City of Baltimore, which has a population of 950,000, has appropriated two hundred thousand dollars in the first year for Civil Defense activities and the Legislature has authorized a bond issue, which can be spent at the Gov-

ernor's discretion, of two million dollars as a starter.

In our initial preparations the state should provide somewhere between twenty-five and forty per cent and the Federal Government provide fifty to seventy-five per cent, depending upon the state. Of course, that is a question very difficult to answer. Some communities have more money than others.

THE MODERATOR: Thank you, Dr. Long. I realize it was a very difficult question, but it is one that keeps recurring and I thought we could profit by an expression of your opinion, and I am sure we have.

I have found that in my own connection with this Civil Medical Defense Program among the doctors and among the general population that there has been a considerable anxiety about several aspects of it and one of the problems which has most frequently come up has been with regard to blood bank programs and the nomenclature to be used in various municipalities and the question of the Rh factor and who should stand the cost of such a program. And I would like to ask Dr. Bergsma if he will give an expression of his opinion on several of the aspects of this matter.

DR. BERGSMA: The Committee on Civilian Blood Grouping and Typing and Supply has really done a magnificent job. They designed very carefully a program which I think is practicable. They recommended that nomenclature be the international coding for blood grouping, the O, A, B, or the combination AB. They recommended that the O group of potential donors be titered to determine those which have a titer of less than one to two hundred so as to distinguish them as truly universal donors from the blood grouping point of view. They also recommended specifically that the Rh factor be determined as positive or negative.

They recognized clearly that there just is not enough money, enough serum, or enough trained personnel to blood group and Rh type every citizen in this state in a reasonable period of time. Accordingly, they recommended that healthy adults between the ages of eighteen and sixty be the first to be blood grouped and Rh-typed, on the theory that they are potential donors. Children and older people, are not thereby harmed because they could receive blood from these potential donors even if their own blood group were not known, provided you could get enough universal donor Group O of low titer and of known Rh type. In emergencies we would be particularly concerned about being sure to use Rh negative O Group blood for women under forty, for obvious reasons, unless we could know the recipient's blood group and Rh type and be sure we were matching it correctly.

The supply scheme as it was originally understood was that the American Red Cross (which has obligated itself to develop a mechanism for recruiting personnel for taking blood and as potential donors) were going to provide the blood necessary to the Armed Forces who would pay for the cost of the process. If it were not used for whole blood purposes it would be processed into plasma or eventually into some derivative.

It was also originally planned that Federal Civil Defense agencies were to provide funds to conduct a similar program through the American Red Cross to stockpile plasma. Dr. Kiefer told us how long it would take even to begin mass processing and storage of plasma after the funds were available. There are at the present time no funds that I know of in any state to handle that particular item. It is a very expensive process. In New Jersey, we are interested in utilizing existing civilian blood banks. We have urged that they amplify their facilities to meet the normal needs of civilians. In too many instances the program does not meet normal civilian needs. If these existing blood bank programs could be stepped up so that they were adequate to all civilian needs, they would be in a somewhat better position to provide blood during an emergency.

Should an emergency occur, the Red Cross would utilize their existing machinery for recruiting personnel and their existing trained teams across the country, if necessary (at least in all areas not immediately attacked) in order to provide a maximum amount of whole blood. That would be an inadequate answer, but at least as of the moment, in case of an emergency, it would be a mechanism that would be used in so far as it could be worked.

The idea of walking blood banks has been discussed in great detail. The concept of having healthy adults (previously blood grouped and Rh-typed) is one mechanism for creating an established blood bank. However, we have strongly recommended that such persons should not have a small sample of blood taken for that one purpose only, but rather that they should become an actual donor. They get an experience from that process which is important. Somebody else of necessity must get experience in taking the blood and handling it, which would be important. We are interested in having a maximum number of citizens, technicians, laboratory technicians and so forth, trained to assist in this kind of work.

As of this moment we have no adequate or complete answer. It is a complex problem, but many minds are working on it. There is real

hope that certain substitutes may become available. We recognize they are not entirely adequate for all purposes, but certainly a good substitute, if it had a long shelf life and didn't cost too much, would be a tremendous boon.

Who should pay for this? Well, I am in the position that Dr. Long is in that regard. It is a little hard to say exactly by what economic mechanism the bill should be paid. It is very obvious, however, that in the last analysis Mr. John Q. Public, you and I, do pay the bill regardless of which tax till or other mechanism is used in actually paying for the item.

THE MODERATOR: Thank you, Dr. Bergsma.

I would like to ask Dr. Kiefer to what extent stockpiling is to be tolerated or encouraged on the various municipal, state and Federal levels.

DR. KIEFER: We have recommended actually four procedures with respect to consumable surgical supplies and related supplies for Civil Defense purposes.

First, that all hospitals increase by approximately twenty per cent their present inventories of supplies if for no other reason than to be better prepared to take care of peacetime disasters.

Second, that target cities stock and store first-aid supplies sufficient to carry them through the first four hours following disaster.

Third, that all homes be encouraged to store first-aid supplies. I want to issue a word of caution in this respect. If each home purchased first-aid supplies using the items that are normally included in standard first-aid kits, our surgical supply industry would be bled to death by hundreds of thousands or millions of small purchases. We have devised a recommended list of first-aid supplies that uses a minimum of critical items and a maximum of such things as unbleached muslin triangular bandages, towels, sheets and similar items. All these things together would not give us adequate supplies beyond the first few hours following a disaster. I should explain the reason for this. Some of you may not be familiar with it.

Our surgical supply industry lives a hand-to-mouth existence. The shipments of surgical supplies are direct from the manufacturer to the retailer or frequently to the physician or hospital consumer. There is practically no warehousing of these supplies. Retail dealers carry only from thirty to sixty days of normal inventory or in other words a few hours of supplies under the type of disaster conditions that we have been talking about tonight.

For this reason we also have recommended that the Federal Government store supplies to back up local supplies—the stores that are necessary beyond, let's say, the first four hours of a disaster. They will be stored on a regional basis, removed sufficiently from any target area so as to minimize the chance of their being destroyed by enemy attack and yet within a few hours' shipping distance by truck, rail or other means to any of our target areas.

That is about as far as I can go at the moment. The program I have just presented was formulated on the basis of a supplemental appropriation for 1951. It went in as part of the President's budget. From the House Appropriations Committee the amount which we had asked for, we received nothing. The Senate Appropriations Committee, meeting some weeks later, allowed for Health and Special Weapons Division supplies a total of fifty million dollars. There is a slight discrepancy in the two figures.

We don't know yet what is going to be the outcome. This whole matter now will have to come up, as you probably know, in conference between the committees of the House and the Senate for decision. That is all I can tell you at the moment.

THE MODERATOR: Thank you Dr. Kiefer.

Are there any questions from the floor?

MR. MICHAELS (Ridgefield Park, Bergen County): I'd like to direct my question to Dr. Bergsma.

Under the *Health and Special Weapons Manual* they set up a first-aid organization of 185 personnel. Do we in New Jersey follow the *Health and Special Weapons Manual?*

THE MODERATOR: There is a manual issued by the Federal Government, and the gentleman would like to know whether in New Jersey we will follow the Federal *Manual* in setting up the aid stations.

DR. BERGSMA: In large measure, we accept the planning that was offered in that book, including the specific combination of this first-aid team.

New Jersey has 600 municipalities and they vary greatly in size. Many are so small that they do not have within their own resident group even one physician; or perhaps only one dentist or no pharmacist, et cetera. To achieve the combination of personnel in teams as proposed, in such areas it is necessary that they be grouped from more than one municipality within the same Civil Defense area.

MR. MICHAELS: In your manual of training you refer us to the Red Cross to get instructors. If they are not available, is there any other source for instructors for civilians?

DR. BERGSMA: It would be highly desirable if all litter bearers were to be trained in first-aid, but it is not technically necessary that they be so trained. Basically, the answer is that in some portions of the state the demand for such

training has exceeded the supply of instructors. In certain other parts of the state the reverse is true.

My suggestion to the representative of the American Red Cross in this state was that he start exercising this concept of mutual and mobile support and transfer one of his instructors, where they had one in excess, to another area, arranging, if necessary, for his transportation. He said he would look into that matter.

I cannot tell you just where the bottlenecks may be in that regard, but I was assured by the Public Relations Director of the American Red Cross that they were working out a plan which would provide additional instructors where they would be needed. There would, of course, be some delay in getting them trained, but they have that as a definite part of their program; and very recently information became available, in terms of home nursing training, that four different colleges are prepared to put courses on this summer for personnel interested in becoming instructors in home nursing. That kind of information is now available and is being sent out to the local Civil Defense Councils.

I understood that one of the biggest bottlenecks in New Jersey was in finding enough instructors to put on courses for nurses' aides. I understood that the situation in relating to putting on courses in first-aid was not acute across the entire state but was difficult in certain spots. I was assured that they were going to take every measure to get additional trained people for that purpose in those areas.

DR. MARSHALL SMITH: Dr. Long stated that in Baltimore he had planned to have an auxiliary hospital set up in one of the large buildings only to find that it had been preempted by the Red Cross. In the Raritan Area we have had that experience several times. The best buildings that we could find for emergency hospitals were already preempted.

Some time ago there was a proposal to designate certain types of buildings for certain types of emergency use, such as schools and gymnasiums, for hospitals; and perhaps churches and other types of buildings for evacuation centers. I'd like to know if that plan has gone through, and if not, how we can resolve the temporary disagreement between Civil Defense and the Red Cross as to who is going to use the building for what.

I'd like to ask about the question of adequate control of the first-aid squads throughout the state. New Jersey is blessed with probably the best system of first-aid and rescue squads in the union. In any disaster, the problem is going to be adequate control of those units that we may have a proper distribution of casualties so as not to overload one hospital and leave another vacant. We have had that experience three times.

The question is: What authority does the Civil Defense have over such an organization as the New Jersey State First Aid Council?

The third statement that I'd like to make is possibly in answer to the doctor's question about this 150-litter bearer business. We in the Raritan area think we have that solved in this way: we cannot handle 150 litter bearers on a unit. In the first place, we haven't got enough men to man 12 or 14 units and we figure we can probably use them for something else. What we have in mind is this: our communities are setting up manpower pools on a purely local basis whereby a certain proportion of the population—one man from each block or two men from each block, selected by the block wardens— will in the case of disaster report to a collection center. We will have that manpower pool scattered all over the county. Then our Area Control Center can call on that manpower pool for litter bearers and send them. We don't have to transport 150 men with each ambulance, which is a physical impossibility.

MR. DIGNAN: Well, Dr. Smith, the answer to both your questions, insofar as the first-aid squads are concerned and the buildings, that's the reason for local area directors and district directors. That is their job and it is their decision. They decide what the buildings are to be used for. The Red Cross may apply for one, the Medical and Health Service may apply for one, the Welfare Service may apply for one. It is the decision of the local council and the local director wherever that building is located.

Your first-aid squads are already organized. Where one squad is located, it comes under the local director insofar as Civil Defense is concerned.

DR. BERGSMA: It might be helpful to say that when Civil Defense Law applies, then all these other agencies to which you refer have no authority of their own. They either are a part of Civil Defense or they have no authority at the time and therefore there is only one proper way of handling it and that is to integrate all of those activities into the total Civil Defense plan at the local level. That should be going forward now and it should be made very clear what the lines of command are in terms of Civil Defense. Unless there are clear lines of command there will be utter confusion.

DR. SMITH: We have in my part of the state a number of units in each municipality— I am talking about first-aid squads— one to perhaps twelve units in each municipality. Now, if those are all under local control and we

have an atom bomb, we are going to have utter chaos. They must come under a minimum of area or district or state control and they must be dispatched by a higher authority than the local.

I find that the two groups, the New Jersey State and the Middlesex County First-Aid Councils, are quite willing to join in with a central control, but they are at loggerheads as to the mechanism of it. It can't be on a local basis. If you are going to have control, it's got to be on a higher level.

Does the State Defense Council have the authority to tie them in or must it be done on an area level? It can't be on a local level.

MR. DIGNAN: Well, if you are speaking of an atom bomb, the Governor will proclaim an emergency under the law. If you need mutual aid—that's why your area is set up—your area requests from your local communities first-aid, fire equipment, whatever it is. It is their responsibility to send the equipment that they can. Usually it would not be over one-third of the total amount of fire equipment that they have. But it is the area director who will request that equipment and they will send it to wherever he tells them to.

Under peacetime disasters, Civil Defense in New Jersey at the present time is not active unless they are requested to come in by local authorities.

DR. MCCARD: I understand that the Armed Services have special biologic warfare weapons up their sleeves which the civilian practitioner knows nothing about and that certain segments of authority, the State Department of Health or otherwise, were to be told about those special weapons of bacteriologic warfare. I wonder whether that has been done.

DR. KIEFER: I think we better first understand exactly what it is that we mean. I don't think what we need is any release of any information which is being developed or any work which is being done by our own people here, assuming that such work is being done, because actually what we are interested in is what weapons might be used against us—there is a considerable difference—not what we are working on, if we are working on any, but rather what our enemies might be using.

There is nothing mysterious about biologic warfare. Anyone with training in bacteriology can do a pretty good job of estimating what weapons might be used against us. However, we have planned (and will put on as soon as funds are made available) courses in specialized training particularly to epidemiologists and to laboratory people in the identification of organisms that might come from exotic diseases. That is our biggest problem at the present time. From there on the advice as to how public health departments would manage these cases or how physicians would manage individual cases would not be a serious problem at all. Our biggest problem is teaching the methods for epidemiologists and particularly for laboratory technicians. We have all the information declassified that is needed for that purpose.

DR. ARTHUR ZAMPELLA: I am a member of The Medical Society of New Jersey and the Jersey City Defense Council.

Dr. Kiefer, may we have your views on the following points: First, the practicability of divorcing the Health Service from the Special Weapons Sections in Defense Councils; secondly, on the possibility of including bacteriologic defense with radiologic and chemical defense; and third, the possibility of using nontechnical personnel for radiologic and chemical monitoring.

DR. KIEFER: When I talk about Special Weapons Defense I am talking about the defense of humans or animals or crops; I am *not* talking about the defense of structures against atomic bombs. That obviously is not a subject which is within the competence of any physician or other health personnel.

What is defense against biologic warfare, against chemical warfare, against radiologic or atomic warfare? It's the same people that you are going to use and essentially the same methods. Actually we don't have very many new things introduced. In the first place, it is the magnitude of our problem that is different. We have radiation sickness to consider; but we know that even radiation sickness comprises a relatively small proportion of the casualties that we would expect, and furthermore it is the same physicians that you are going to use to treat broken legs or burns or other mechanical trauma or anything else, that you are going to use for that purpose.

As for radiologic monitoring, it was our belief that this belongs under Health and Special Weapons Defense because ultimately radiologic monitoring must come to a medical decision. The radiologic monitor is somewhat akin to a laboratory worker used by the physician to obtain certain information for him, which the doctor, in truth, uses to form a diagnosis and to determine treatment. Radiologic monitoring is not an end in itself; it still must be subject to the judgment of some one who realizes the effects of radiation on human beings.

We have no hard and fast rules concerning permissible doses of radiation. That has to be determined by the judgment of physicians specially trained for that purpose. Even then their decisions are subject ultimately to a command decision as to whether (in spite of the

risk that may be incurred to people entering an area) they are going to have to go in anyway. We send firemen into burning buildings to pull out people when we know that we are risking their lives to do it. We may have to do the same thing in Civil Defense.

DR. ZAMPELLA: How about including the matters of radiologic and chemical defense in bacteriologic defense?

DR. KIEFER: Using untrained persons?

DR. ZAMPELLA: No. Concerning the organization and the allotment of responsibilities; that is, to include bacteriologic in the Special Weapons.

DR. KIEFER: By the definition within the Federal agency, Special Weapons Defense includes any measures for the protection of people, animals or crops against atomic, radiologic, biologic or chemical warfare.

MISS MILDRED GONYEAU (Essex County): I'd like to direct my question to Dr. Bergsma. In your opinion, how soon will our information be ready for the nurses of the state in teaching them the courses we should have?

DR. BERGSMA: Five nurses were sent to Rochester or to Atlanta, Georgia to take courses there. That group plus representatives of the nursing association in New Jersey are constructing a curriculum for the further training of nurses who will be at the district and area levels so that they in turn could train other nurses at the local levels. There was a meeting on that subject last week and we are hopeful that they will turn in specific recommendations soon. We are prepared to print the material and to assist in other ways in getting the training carried forward.

MISS MADELINE HILL (Union City): What I am interested in is whether it is feasible for the Medical Society to set up standing orders for the nursing groups to use in any type of disaster. All nurses could then be instructed throughout the state so if they are transferred from one part of the state the same standing orders could be followed.

THE MODERATOR: The question was whether it would be feasible for the medical profession to issue orders in the case of a catastrophic occurrence so that the nursing profession could be mobilized in any part of the state needed. The answer is this: in an atomic disaster the nurses and the doctors and all personnel of the state will be under the orders and control of the Governor and his Director of Civil Defense. In the situation you have mentioned, the proper civil authorities will do that. I do not believe that the medical profession will be able to direct the nursing profession to different parts of the state where they will be most useful.

MISS HILL: I'm afraid you misunderstood my question, Dr. McBride. I am directing this question with regard to specific nursing procedures or assisting the physician in certain methods of medical care of the patient. I mean you have talked of using the morticians and dentists to do certain things. I certainly think that we are more the righthand man than they are. What part are we going to play? What standing orders are we going to have to work on this?

DR. BERGSMA: No specific standing orders have been prepared. However, the planning stages really involve the use of the nursing profession in these first-aid medical teams and in connection with the surgical and burn and other teams that will be assigned to general hospitals and emergency hospitals.

At this moment the planning hasn't gone to the point of specific standing orders that would be used by nurses in a first-aid medical post, as we are calling it in this state. But that has to be developed before we are ready for the final operational stage. It should be done. It hasn't yet been done because we have been working so far on more basic things.

A VOICE: Has there been any thought to issuing identification cards or tags of some kind for everybody to carry?

THE MODERATOR: The question presented was: Has there been anything done or any thought given to the matter of identification tags which will include blood grouping and further material of use in the Civil Defense program?

DR. LONG: That has been a problem that has intrigued me for nine years. Even in the face of the greatest danger and possible death, the average American male, for reasons that I don't understand, has some dislike about wearing what were called "bloomin' tags". Twenty per cent of our dead, mainly riflemen and infantry companies, came in in North Africa and Italy without any tags on them.

This whole question of tattooing people on their right shoulder or under their left eye with their number and their blood group and whether they have been immunized with tetanus, what their religion is, having that on a tag or card in the pocket, has been discussed up and down this country and there are great protagonists who think everybody ought to be tattooed and other people who think that everybody ought to wear tags.

Maybe in the civilian population you can fine them a hundred dollars if they are caught without tags. We tried this for a while with soldiers, but it didn't work. We sent medical officers up and down the streets of Naples, asking all nurses and medical officers and other officers: Let me see your tags? This brought

about some embarrassing situations at times. (Laughter) I think that it would be a waste of good metal to put out tags. (Laughter)

Dr. Bergsma: I would like to make one further comment in connection with that. We have done a lot of thinking on that subject in this state. This is the situation where experts don't altogether agree.

It would be very difficult to require every citizen to wear a tag. Some wouldn't like it for esthetic reasons. They never would all do it. But citizens should be acutely aware of the desirability of wearing such identification. If they would like to die with no one knowing who they were, that would, of course, remain their American privilege.

We know from the South Amboy disaster that there were certain people who presumably went to work there and have never been found since. It has created many problems. No part of their body has been found. No one can guarantee that they don't have amnesia and are wandering around in California. Some fourteen people are presumably dead. Legally many problems are created. They had been presumably healthy people in the recent past. They weren't under medical care. Under the rules a physician cannot make out a death certificate; under the rules the coroner or the county physician or the medical examiner—we have all three in the state—cannot make out the death certificate because the law says he must first view the remains.

The State Health Department is repeatedly asked to do something about it because they want legal evidence of death; they want to settle estates; they want to settle insurance; they want to do many things. Of course, when no part of the body is found at all, it makes it pretty difficult. We have reason to suppose that in this atom bomb situation, many bodies will be very severely burned beyond recognition. There are costly and time-consuming methods that might be used to identify such bodies, but it would be much simpler if there were attached to such a body skeleton, particularly if it were fastened about the neck, some metal that would resist heat and be available for ready identification. It actually would be a help in terms of morale and many other things.

It would be impractical to require tagging in a hundred per cent of the citizens. Yet we know that a Princeton Poll in this state discovered that eighty-five per cent of New Jersey citizens were strongly for the wearing of a tag and thought it ought to be required. We feel that citizens ought to be offered a specific method whereby they could be properly identified and that those who wish to use it certainly should not have to go without it solely because a system has not been provided.

Dr. Kiefer: There is a standard identification tag now being worked on. That is a responsibility of the Emergency Welfare Division, a Federal agency. I agree with Dr. Long, that even after solving the question of getting a satisfactory standard tag, the biggest problem is going to be to get people to wear it.

We are also devising standard casualty record systems and tags. When I say "standard", I mean that our hope is that they will be made uniform on a nation-wide basis; and that they will be devised, insofar as possible, to be similar to military records so they will be interchangeable between military and Civil Defense personnel.

Mr. Keola: My name is Keola, from Millville, New Jersey, a pharmacist representing the Millville Defense Council. Our medical group has set up a disaster list of drugs and chemicals that we may need in event of disaster. Among that list is one hundred pints of blood plasma which our community needs. There are fifteen thousand in our community. We are kind of isolated there, and we think a hundred pints of plasma would be necessary in that community. However, the Red Cross has definitely opposed stockpiling of blood plasma. Our argument is that it is for sale, that there are manufacturers willing to sell blood plasma to private organizations or defense councils. We are stymied now on that problem: whether to buy it or listen to the Red Cross and not buy it.

The Moderator: The situation described is in a town of fifteen thousand, the medical part of Civil Defense has advised stockpiling a hundred pints of plasma. The Civil Defense have consulted the Red Cross, who have advised *against* stockpiling this hundred pints of plasma. The question is: Whose advice should be followed?

Dr. Bergsma: In a small area like that I do not believe it wise to arrange for local needs for plasma. If an emergency really occurred in that location, 100 pints of plasma would be made available from some other source, just as it was at the Woodbridge disaster.

If you were asking me that question in terms of the city of Newark, I might modify. But in terms of Millville, or some similar place, I would say that it was not indicated.

The Moderator: I would like to thank the members of the panel for coming here and giving so freely of their time, efforts and thought on these matters. And in the name of The Medical Society of New Jersey, I thank them and I also thank you for coming here tonight. (Applause)

(The meeting was then adjourned at 10:30 p. m.)

DINNER - DANCE

May 16, 1951

The speakers' section of the dinner-dance program convened at 8:55 p. m. in the Rutland Room, Dr. Hilton S. Read, Toastmaster.

Dr. Read: I hope that all of you saw how much care I exercised in getting the microphone exactly right, because I want to be perfectly safe in pulling the old corn again. A cuspidor is exactly like a microphone. Neither one is any good if you don't hit it.

Dave Allman said to me just before the dinner tonight: "Please, won't you be good enough tonight to talk slowly and distinctly". If anybody believes that that is a Dave Allman quote, they'd almost believe that John L. Lewis is superintendent of the Sunday School down in the Methodist Church.

I actually don't mind this at all. I have had a lot of experience at this thing. It's been forty-eight years since I stood on a nearby pulpit down here and said, as I wore a beautiful little Buster Brown collar and a Dutch-bobbed head: "I'll never use tobacco, it is a filthy weed; I'll never put it in my mouth, said little Hilty Read."

These fire-cracking friends up here—not a damn thing has changed since I was here nine years ago. (Laughter) The Auxiliary always counts on the President's county delegation being out of control completely. And justifiably so, they gave them the most undesirable seats in the house, up behind the poles. (Laughter)

I forgot to say that on that same program, forty-eight years ago Jimmy Mason, one of our surgical chiefs, sitting down here, was on the program; and when it came his turn, all Jimmy could do was stand up and say: "Don't know my piece. Don't know my piece." (Laughter)

Nine years ago was the last time that I was here. I was introducing George Lull who was then the Deputy Surgeon General of the United States Army, now Secretary of the A.M.A. He insulted everybody in the room; at least I took it personally, when he said at that time the war was in need of doctors; and George said: "The men I'm talking to are not here in this room. There isn't a single man in this room that the Army wants." If there is anything you can do to affront a man it's to start to tell him he is not wanted, tell him he is getting old. Four days later Elton Lance and I were in the Army.

Stand up, Elton. Our new Vice-President. (Applause)

I am glad to be assigned back into this job. It is a little bit at variance from the captain I heard about the other day, who was in the army. He had eight, four and two-year-old boys with whom he was having disciplinary problems. He decided to organize the family as a military unit. He said he'd have them standing at attention; he'd have them saying yes, sir and he'd have them running errands. He said when their mother wanted her pocketbook or glasses they'd run upstairs without question.

So he organized them, had them saying yes, sir, and no, sir; and he came home one night and there was a window broken. He said to the eight-year-old—and this shows the influence of television on the recent exposure trials—"Did you break that window?" "No, sir." "Do you know who did?" "Yes, sir." "Who did it?" "I'd rather not incriminate myself, sir." (Laughter)

To the four-year-old: "Did you break the window?" "No, sir." "Do you know who did?" "Yes, sir." "Who did it?" "I'd rather not incriminate myself, sir."

To the two-year old: "Did you break that window?" "Yes, sir." "Well, before I give company punishment do you have anything to say in your own defense?" "Yes, sir. How the hell do you get transferred out of this chicken outfit?" (Laughter)

So that I'm glad to be transferred back into this outfit. It's not a chicken outfit; it's an outfit that I'm pleased to be here with.

We are all happy that you are here tonight. I think it is my prerogative to welcome you, although the welcomes are programmed for another. I can't help but think how important the Auxiliary is and what a really good job they have done in having this many people here.

I saw a patient not long ago here in Atlantic City, who was quite ill. He was with a convention and I said to him: "Well, we won't have to get a nurse because I assume your wife will take care of you; this is only a minor thing." He said: "No, I never bring my wife." He said: "Bringing your wife to a convention just doubles your expense and halves your pleasure." (Laughter)

The Medical Society of New Jersey, like every other society, would have difficulty in discharging its full responsibility to the consumers of medical care, which is after all of primary importance, if it weren't for the sterling work done by our Auxiliary.

I count it a real pleasure at this time to give to you Mrs. R. John Cottone, President of the Woman's Auxiliary to The Medical Society of New Jersey.

MRS. R. JOHN COTTONE: Our very good friends: It is my happy privilege to bid you all a very warm welcome to this occasion honoring Dr. and Mrs. Crowe.

We of the Auxiliary are deeply grateful to Dr. Crowe, to the members of the Board of Trustees and to the officers of the Medical Society for the recognition they have given our achievements this year. To be a member in our Auxiliary is a privilege extended to us by our husbands and our work is exclusively in their profession. We are happy to do the job you give us, faithfully and loyally.

We have an added pleasure this evening as we pay a special tribute to the Fellows of The Medical Society of New Jersey and their wives. These fine men, who have led the Medical Society and fostered our Auxiliary, have a very special place in the hearts of all of us, and we hope each one of them will be with us for many conventions to come. (Applause)

DR. READ: Thank you Mrs. Cottone. May I thank you for your very prompt terminal facilities. (Laughter)

Aldrich Crowe left an awful reputation at the Philadelphia General. We have all been trying to catch up with it ever since he left it there. He was known for many things. I won't have time to recount them tonight, otherwise I wouldn't live up to what we hope will be a brief presentation.

Aldrich has done, under our observation, a sterling job this year. Each year seems to get more difficult and yet always out of The Medical Society of New Jersey comes leadership equal to it, so that each year in terms of accomplishment means more. Not only is that a tribute to our leadership, but it is a sterling tribute to our membership.

I take particular delight tonight and consider it a high honor and a great privilege to be able to present to you Dr. Aldrich C. Crowe, the President of our Society. (Applause) (The members arose and applauded.)

PRESIDENT CROWE: Dr. Read, Mrs. Cottone, Fellows of The Medical Society of New Jersey—I must treat them with deference because I'll be one of their members very shortly —My Fellow Members of Cape May County, Ladies and Gentlemen: One of my very oldest friends asked me tonight: "Are you nervous?" They all know that I am nervous, but after eyperiencing three sessions in the House of Delegates, I think I am immune; and if I am not, I am incurable. We have had a very fine convention. I appreciate everything that has been done for me. You have all been very gracious.

On May 3, 1951, for the first time in the history of The Medical Society of New Jersey, a component medical society of this State honored one of its fellow-members as the retiring President of The Medical Society of New Jersey by presenting him with a beautiful scroll and a lovely silver tray. I would like my fellow-members from Cape May County to take a bow. (Applause)

Edith Madden has been a friend of mine for many years. If I have to celebrate Edith's birthday and Hilton's birthday at one convention, I don't know what is going to happen to me. But I would be very remiss if I didn't thank Edith for all she has done for me over the period of years. Edith, will you take a bow? (Applause)

In my opening remarks to the House of Delegates it was manifestly impossible for me to thank everyone that has helped me. There is one man, though, that has been a great support to me. He has given me great advice; he has been with me on many occasions; he is a very well-known individual, excellent chauffeur and smokes very fine cigars. He is the chairman of many committees of The Medical Society of New Jersey, including the Finance and Budget Committee which I like very much, but primarily he is Chairman of the Board of Trustees and my special friend, Dave Allman. Dave will you just take a bow? (Applause)

The next gentleman has been by co-partner this year. He has worked with me. We have consulted on many occasions. The policies that this Society has carried out this year are his policies as well as mine. This Society should feel very highly honored in your new President. He is one of the finest gentlemen I have known. He is sincere and Sig Johnsen will make us one of the finest Presidents we have ever had. (Applause)

Hilt Read is great on brevity and so am I; that's one of the main reasons I asked Hilt to serve tonight. I thank Hilt very much for a number of things. Hilt is the man who is responsible for my becoming a Fellow of the American College of Physicians. He has been a friend of mine, and, Hilt, I am glad to have this opportunity to thank you.

This is a great tribute that you have paid to Hilt and to me and I thank you very, very much from the botton of my heart. Thank you. (Applause)

DR. READ: Constitutionally the President of the Auxiliary does not become actually the President until the annual meeting of the

American Medical Association, so that we have a dual and happy privilege tonight of having two President of our Auxiliary here beside me. I assure you it has been a most pleasant experience.

It is a real privilege at this time to give you Mrs. Thomas H. McGlade, the President-elect technically of the Woman's Auxiliary of The Medical Society of New Jersey.

(Mrs. McGlade arose while the members applauded.)

DR. READ: I am sure you agree with everything she said; (Laughter) that you are most appreciative of the sentiments that she has expressed; and that you each and every one pledge your hearty support to her throughout the year. (Laughter)

I share with Aldrich the same keen admiration and the same confident approach to the next year of The Medical Society of New Jersey's accomplishments because I know that our President is not only a wonderful administrator, he is a great clinician; but greater than that, he is real humanitarian and he will see that we, the members of The New Jersey Medical Society, discharge our full responsibilities to the deserving ill of this State. Dr. Johnsen.

(The members arose and applauded.)

DR. READ: Sig assures you that everything will be done next year to carry on the same policies that have been carried on this year. He assures you that if he has to get giant firecrackers to put under the Passaic gang next year there will be not one of them allowed in the hall; and he pledges not to put one of them on a committee. In that way you can be sure of the smooth running and noiseless running of The Medical Society of New Jersey next year.

Howard Hornberger—this seems almost like an old Blockley night—was a resident at the Philadelphia General just ahead of me. The worst thing he ever did at Blockley was to steal the best nurse they ever had and marry her. There were still many broken hearts strewn around the old walkways of Blockley as a result of Howard's matrimonial venture. Despite that, all the Philadelphia General Hospital men hold Howard in great esteem and I am sure all of you have fresh in your memory the great job he did for us the year before last. Howard Hornberger. (Applause)

DR. HORNBERGER: Dr. Read, Dr. Crowe, Guests, Members of The Medical Society of the State of New Jersey: Once in the dear, dark, long days beyond recall I happened to be a freshman in a high school up in central Pennsylvania and we had a Latin teacher who was really, shall we say, a bearcat. At the end of the freshman year we had ourselves a real celebration commemorating the fact that we were through once and for all with that lady. Lo and behold at the opening of the next term, who walks in but the same lady, and said, very tersely: "The cat came back."

That is very much the way that I feel tonight. I feel as though the cat came back. I thought I had delivered my swan song a year ago and all the oratory, all of the fancy words that I had within my power to express, I expressed at that time; so that tonight I have absolutely none left.

I am very happy, however, to be privileged on this occasion to present the key to Fellowship in The Medical Society of New Jersey to my good friend Dr. Aldrich Crowe.

Aldrich and I were residents at the Philadelphia Hospital together in 1921; therefore, I know Aldrich Crowe longer than I know, or certainly as long as I know any member of The Medical Society of New Jersey.

I was very carefully coached tonight relative to what I should say. There should be no stories and there should be no side remarks lest the skeletons in my family closet be revealed to the public; therefore, I need not extol to you the virtues of Aldrich Crowe. You know those and they will be written in the history of The Medical Society of New Jersey far better and far more eloquently than any feeble words that this little brain of mine might express. But certainly I know of no greater pleasure that might have come to me than to present to Aldrich Crowe this key welcoming him in the Fellowship of The Medical Society of the State of New Jersey. I know that he will wear it with the honor and distinction that has characterized all of his words and all of his deeds for the Medical Society.

(The members applauded while the key was presented to Dr. Crowe.)

PRESIDENT CROWE: Thank you very much, Howard.

We have been friends for a long time. At the time he left the Board of Trustees, Howard and I had been on there longer than any two members of the Board; and it is a real privilege for me to receive this key from him. Thank you very much, Howard. (Applause)

DR. READ: I am surprised that Howard admitted it, but in the words of Maggie Griffin, the night superintendent at Philadelphia General Hospital, the tomcat came back. (Laughter)

I would be, I am sure, censured if I didn't introduce the rest of the wax works here at the head table. (Laughter)

Beginning at my far right and with no political implication, I am sure, Dr. Thomas McGlade. (Applause)

And the girl who left more broken hearts at Philadelphia General than anybody since then, Leah Hornberger. (Applause)

And Dr. Cottone. (Applause) His name reminds me of my brother-in-law, Jack Lippincott, at the hotel here, who prides himself in giving all the old guests a real royal welcome. Once he was at the Saturday night dance they have here, with my sister, and he saw an old guest come in and he said: "You wouldn't mind if I brought him over to your table." So he went over and fell on this guy's neck like he had just known him all his life, and he came on over and in the noise of the orchestra he says: "You will have to help me with your name. It slipped me for just a minute." He said: "Smith." (Laughter) Doss looked up and says: "With an E or without?"

The next lady I suppose gets a bit of reflected luster from the fact that her husband is going to be President of The Medical Society of New Jersey. But in her own right she has much more light to stand in. Her son was graduated from the famous Book Course at Chicago University with his degree at age seventeen; went through medicine at Cornell, has just finished up his year at Kings County in New York, and is now awaiting his call to the United States Navy. Anybody with those brains, you know which side of the family they come from. (Laughter)

I'm sure one of the happiest people here tonight is the next lady, the first lady of medicine in New Jersey this past year, a lady who gave unselfishly, and I mean that with all my heart, to a year of devotion to this Society, her husband, who had previously had, as you all know, given several years of activity, Mrs. Phil Crowe. (Applause)

And then the lady at the end, who suffers every time I have to do a job like this because I do such a bad job, split infinitives and the verb "to be"—every time I say "he does not" instead of "he don't" she gets a real pleasure. (Laughter and applause)

I would be completely failing in my duty, and if my bifocals don't fail me now, I will attempt to discharge that duty by presenting to you the men who have made The Medical Society of New Jersey not the oldest society in the United States—that was done by men long before them—but have made it the premier society in the American Medical Association—Dr. George N. J. Sommer (applause); Dr. Lancelot Ely (applause); Dr. Bill Herrman (applause).

Of all the thirteen years that I was Chairman of the Welfare Committee, I remember with the fondest memory Bill Herrman's year, because although I live on the seaboard I love seafoods. As a matter of fact, I eat so much seafood that my stomach rises and falls with the tide. (Laughter) But the unanimity of action that he could get over a lobster will long be remembered.

Dr. Watson B. Morris (applause). My perennial traveling companion to the A.M.A., the old football guard, and he hasn't lost the technics yet, Joe Londrigan (applause). Dr. Royal Schaaf. (Applause)

And now I am going to compound the felony of sneaking away from the program d' events in introducing these distinguished Fellows—I am going to compound the felony further by introducing to you Mrs. Medicine. You have already seen Mr. Medicine of Atlantic County, Dave Allman. Now I want to introduce to you Mrs. Medicine of America, the immediate Past-President of the American Medical Association Auxiliary, our own beloved Katherine Allman. (Applause)

And one final introduction. These things don't just happen, these conventions; you know very well the men don't do it, because they just come and expect everybody to arrange everything; so in your behalf I would like to say thanks and please take a nod, to Adele Subin. (Applause)

The ladies have very graciously prepared, through the cooperation of Joe Sterns, some fine entertainment, after which those of you whose arches will stand it will be asked to dance until the wee hours of the morning.

As far as the so-called serious part of this meeting is concerned, this meeting is now adjourned. You can start to enjoy yourself.

(The speaker's portion of the program was then concluded at 9:25 p. m.)

TRANSACTIONS OF
THE WOMAN'S AUXILIARY
TO
THE MEDICAL SOCIETY OF NEW JERSEY

TWENTY-FOURTH ANNUAL MEETING

The 24th Annual Meeting of the Woman's Auxiliary to The Medical Society of New Jersey was held in the Mandarin Room of Hotel Haddon Hall on Tuesday, May 15, 1951, at 9:30 a. m. The meeting was called to order by the President, Mrs. R. John Cottone. The invocation was delivered by Reverend Harvey Bennett of the First Presbyterian Church of Atlantic City. The Pledge of Loyalty was led by Mrs. David Allman. Mrs. Clarence Whims, President of the Atlantic County Auxiliary gave an address of welcome, and Mrs. Thomas McGlade, President-Elect, delivered a gracious response.

Mrs. Harry Subin, Convention Chairman, presented the convention program and moved its adoption as printed. The motion was seconded and carried.

Mrs. Cottone introduced the President of the Delaware Auxiliary, Mrs. Douglas M. Gay, and the President-Elect, Mrs. Sylvester Renney.

Upon motion by Mrs. John Kustrup, seconded by Mrs. Jesse Glazier, the printed minutes of the 23d Annual Meeting were approved.

Mrs. Edward Dyer, Credentials and Registration Chairman, reported a registration of 190.

Mrs. Arthur Casselman conducted the Memorial Service for Departed Members.

The Treasurer, Mrs. Asher Yaguda, reported an estimated balance of $2425.56. The Auditors' Report was given by Mrs. Jesse Glazier. Upon motion by Mrs. William Dodd, seconded by Mrs. Thomas McGlade, the attestation of the Auditors and the Treasurer's report were accepted.

Mrs. John Kustrup was appointed Timekeeper by the President.

The Corresponding Secretary, Mrs. George Corio, read the following communications: (1) A letter from Dr. Crowe accepting the invitation to the Auxiliary luncheon on May 15, and expressing his appreciation of the Auxiliary's work during the past year; (2) An invitation from Dr. Crowe to attend the General Session on the evening of May 15.

Mrs. Frank Forte, First Vice-President, was requested to take the chair during presentation of the President's report. Upon motion made by Mrs. Allman and seconded by Mrs. Clarence Whims, the report was accepted.

Two-minute reports were given by the chairmen of the Standing Committees and the County Presidents. The reports were accepted by the rule of common consent.

Mrs. Cottone announced that the silver candlesticks and vase used in the Memorial Service were the gifts of the Fellowettes.

Mrs. Cottone also made special mention of the honor Mrs. Glazier had received in being made chairman of Essex County's Permanent Committee for Nurse Recruitment. Mrs. John Kustrup was congratulated by Mrs. Cottone for the prize in art which she recently received in a competition at Rutgers University.

There being no further business the meeting was adjourned until the afternoon session.

The General Session of the 24th Annual Meeting reconvened following the Annual Luncheon honoring Mrs. R. John Cottone.

Mrs. Andrew Ruoff was recognized to present a revision to the By-Laws. Chapter II, Section V of the By-Laws is revised as follows:

> The Treasurer shall collect all monies and pay all bills of the Auxiliary. She shall disburse money only on written order signed by the President. Her books shall be closed for auditing three weeks before the Annual Meeting and a supplementary report shall be made to complete an annual report for the Annual Meeting, with provisions for already-budgeted Convention expenses.
>
> The books shall be audited by a qualified non-Auxiliary auditor or bookkeeper at a nominal fee, which fee shall be passed upon by the Finance Committee.
>
> The Treasurer shall be bonded for an amount commensurate with the funds in her posession.

Mrs. Ruoff moved that this revision be accepted. The motion was seconded by Mrs. Harry Subin and carried. Mrs. Ruoff also read the revisions in the By-Laws for the National Annual Meeting in June.

Mrs. Bertram Sauerbrunn read a recommendation in behalf of the Executive Board that an office for Auxiliary affairs be set up in the Medical Society office in Trenton, and that a clerk or secretary be employed by the Auxiliary. Upon motion made by Mrs. Allman, seconded by Mrs. Walker, this recommendation was adopted.

It was requested by Mrs. J. S. D. Eisenhower that the detailed recommendation of the Committee on Rural Health accompany the aforementioned recommendation when it is presented to the Advisory Board of the Medical Society.

The following were elected to serve on the Nominating Committee: Mrs. Pascal Baiocchi, Mrs. Clarence Whims, Mrs. John Kustrup and Mrs. Ralph Bush.

The following candidates were presented by Mrs. Allman for the Nominating Committee:

President-Elect—Mrs. Edward Dyer
First Vice-President—Mrs. Frank Forte
Second Vice-President—Mrs. Paul Rauschenbach
Treasurer—Mrs. Asher Yaguda
Recording Secretary—Mrs. Bertram Sauerbrunn
Directors—Mrs. J. S. D. Eisenhower, Mrs. Samuel Jessurun, Mrs. D. Leo Haggerty.

Since there were no further nominations, it was moved by Mrs. Walker and seconded by Mrs. Joseph Mott, that the slate presented by the Nominating Committee become the Elective Ballot of the General Session. The slate was thereby declared elected by the President.

Mrs. Allman was recognized to present the following courtesy resolutions:

Whereas, our President, Mrs. R. John Cottone, has served the Woman's Auxiliary to The Medical Society of New Jersey faithfully and well; and

Whereas, under her leadership the Auxiliary has grown both in interest and members; and

Whereas, her devotion to her duties as president has greatly inspired Auxiliary members, and her gracious personality has endeared her to all members; therefore be it

Resolved, that the Woman's Auxiliary to The Medical Society of New Jersey at this Twenty-fourth Annual Meeting express to our retiring President, Mrs. R. John Cottone, the grateful thanks and sincere appreciation of all members, and be it further

Resolved, that sincere thanks be extended to the President of The Medical Society of New Jersey, Dr. Aldrich Crowe, for his loyal support and assistance; and be it further

Resolved, that the sincere appreciation of the Woman's Auxiliary be extended to the following who have contributed so much to the success of this Twenty-fourth Annual Meeting;

To Mrs. Harry Subin, Convention Chairman and her Co-Chairman, Mrs. Robert A. Bradley, and to all members of her committee,

To Mrs. Edith Madden, Convention Manager of The Medical Society of New Jersey,

To the management and staff of Haddon Hall, and be it further

Resolved, that a copy of these Resolutions be spread upon the minutes of the Auxiliary and individual letters of thanks be written to each person mentioned herein.

Mrs. Allman moved the adoption of these Resolutions. The motion was seconded by Mrs. Mott and carried.

Mrs. Dyer reported a final registration of 249.

Mrs. William C. Wells and Mrs. J. Howard Hornberger were appointed to serve on the Reading Committee.

The installation of new officers was conducted by Mrs. Cottone. At the conclusion of the installation, Mrs. Cottone turned over the gavel to Mrs. Thomas McGlade, the new president. Mrs. McGlade's acceptance speech included the following points:

Recommendation for emphasis on Civil Defense programs
Formation of county study groups in Home Nursing and First Aid
Enlargement of the Nurse Recruitment programs
Increase of membership over the present 32 per cent
Fostering of friendliness within the Auxiliary
Continuation of social functions to stimulate interest
Becoming informed on appropriate phases of legislation
Maintaining the Auxiliary as a source of accurate health information for the laity.

Mrs. Harold Eynon presented the new president with a gift from the Camden County Auxiliary.

There being no further business, the meeting was adjourned.

LUNCHEON ADDRESS

MRS. R. JOHN COTTONE, President

This Annual Luncheon has become one of the most enjoyable of the well arranged events on our convention program. Our committee deserves the highest praise for their work and their friendly hospitality.

As I close my year, I realize and appreciate more and more the fine work which has been done by those presidents preceding me. It is only by the splendid cooperation of all of you that this worthwhile work goes on from year to year, and, from year to year, I believe, we all appreciate more fully the privilege and honor of being Auxiliary members.

As wives, we know that our doctors have a very special place in the hearts of their patients and we are permitted to share with them the joy of life that lies in thoughtful service.

One thing beyond anything else I would like to do before I leave the office of President, is to bring to each of you the sense of belonging to one large organization which covers the entire country, and among its members are the finest women in the land.

My year has been made more fruitful by the association I have had with our incoming President, Mrs. Thomas H. McGlade, who has not spared herself in her effort to become acquainted with the work of our Auxiliary as she has traveled with me to county meetings, health conferences, and national and state conferences. I believe Dorothy McGlade has all the fine qualifications needed to make a good president, and added to them, tact for putting fun into her work. I am sure we are all going to give our new president and her officers and chairmen the very fine support they deserve.

My term as President will always be a bright and cherished memory and again I say "thank you for the privilege of serving as your president". Because of you my life today is both richer and fuller.

The Medical Society of New Jersey

Official List--March 1, 1951

OF

FELLOWS AND MEMBERS

Supplement to The Journal of The Medical Society of New Jersey, April, 1951

The Medical Society of New Jersey

OFFICIAL LIST—MARCH 1, 1951

of

FELLOWS AND MEMBERS

CONTENTS

OFFICIAL LIST OF MEMBERS
OF
THE MEDICAL SOCIETY OF NEW JERSEY
FOR THE YEAR 1951

FELLOWS

"THE FELLOWS ARE THE EX-PRESIDENTS OF THE SOCIETY." (Constitution, Article IV, Section 2-a)

Year of Election

1. 1766—Robert McKean, Perth Amboy, 1732-1767
2. 1767—William Burnet, Newark, 1730-1791
3. 1768—John Cochran, New Brunswick, 1730-1807
   1769—John Cochran, No. 3 reelected
4. 1770—Nathaniel Scudder, Freehold, 1733-1781
5. 1771—Isaac Smith, Trenton, 1740-1807
6. 1772—James Newell, Freehold, 1725-1791
7. 1773—Absalom Bainbridge, Lawrenceville, 1742-1807
8. 1774—Thomas Wiggins, Princeton, 1731-1801
9. 1775—Hezekiah Stites, Cranbury, 1726-1790

No formal meetings 1776-1780 on account of the War of the Revolution

   1781—James Newell, No. 6, reelected
10. 1782—John Beatty, Trenton, 1749-1826
11. 1783—Thomas Barber, Matawan, 1730-1807
12. 1784—Lawrence Vander Veer, Roycefield, 1740-1815
13. 1785—Moses Bloomfield, Woodbridge, 1729-1791
    1786—William Burnet, No. 2, reelected
14. 1787—Jonathan Elmer, Bridgeton, 1745-1817
15. 1788—James Stratton, Swedesboro, 1755-1812
16. 1789—Moses Scott, New Brunswick, 1738-1821
17. 1790—John Griffith, Rahway, 1736-1805
18. 1791—Lewis Dunham, New Brunswick, 1754-1821
19. 1792—Isaac Harris, Middlesex County, 1741-1808

No elections held in 1793 and 1794 because quorum not present

20. 1795—Elisha Newell, Allentown, 1755-1799

No formal meetings 1796-1806 owing to an attempt to establish a rival society in Eastern New Jersey.

21. 1807—Jonathan F. Morris, Somerville, 1760-1810
22. 1808—Peter I. Stryker, Somerville, 1766-1859
23. 1809—Lewis Morgan, Rahway, 1757-1821
24. 1810—Lewis Condict, Morristown, 1773-1862
25. 1811—Charles Smith, New Brunswick, 1768-1848
26. 1812—Matthias H. Williamson, Elizabeth
    1813—Matthias H. Williamson, continued for second year
27. 1814—Samuel Forman, Freehold, 1764-1845
28. 1815—John Van Cleve, Princeton, 1778-1826
    1816—Lewis Dunham, No. 18, reelected
    1817—Peter I. Striker, No. 22, reelected
    1818—John Van Cleve, No. 28, reelected
    1819—Lewis Condict, No. 24, reelected
29. 1820—James Lee, Newark
30. 1821—William G. Reynolds, Manalapan

Year of Election

31. 1822—Augustus R. Taylor, Somerville, 1782-1840
32. 1823—William B. Ewing, Greenwich, 1776-1866
    1824—Peter I. Stryker, reelected. Also served 1808 and 1817.
33. 1825—Gilbert S. Woodhull, Manalapan, 1794-1830
34. 1826—William D. McKissack, Millstone, 1781-1853
35. 1827—Isaac Pierson, Orange, 1770-1833
36. 1828—Jephtha B. Munn, Chatham, 1780-1863
37. 1829—John W. Craig, Somerset County, 1795-1871
    1830—Augustus R. Taylor, No. 31, reelected
38. 1931—Thomas Yarrow, Sharptown, 1778-1841
39. 1832—E. FitzRandolph Smith, New Brunswick, 1786-1865
40. 1833—William Forman, Monmouth County, 1796-1848
41. 1834—Samuel Hayes, Newark, 1776-1839
42. 1835—Abraham P. Hagerman, Somerset County
43. 1836—Henry Vander Veer, Somerville, 1792-1874
44. 1837—Lyndon A. Smith, Newark, 1795-1865
45. 1838—Benjamin H. Stratton, Mt. Holly, 1804-1875
46. 1839—Jabez G. Goble, Newark, 1799-1859
47. 1840—Thomas P. Stewart, Hackettstown, 1798-1846
48. 1841—Ferdinand S. Schenck, Six Mile Run, 1790-1860
49. 1842—Zachariah Read, Mt. Holly, 1808-1879
50. 1843—Abraham Skillman, Bound Brook, 1796-1862
51. 1844—George R. Chetwood, Elizabeth, 1802-1885
52. 1845—Robert S. Smith, Bound Brook, 1800-1874
53. 1846—Charles Hannah, Deerfield, 1782-1857
54. 1847—Jacob T. B. Skillman, Woodbridge, 1794-1864
55. 1848—Samuel Hayes Pennington, Newark, 1806-1900
56. 1849—Joseph Fithian, Woodbury, 1795-1881
57. 1850—Elias J. Marsh, Paterson, 1803-1850
58. 1851—John H. Phillips, Pennington, 1814-1878
59. 1852—Othneil H. Taylor, Camden, 1803-1869
60. 1853—Samuel Lilly, Lambertville, 1815-1880
61. 1854—Alfred B. Dayton, Middletown Point, 1812-1870
62. 1855—James B. Coleman, Trenton, 1806-1877
63. 1856—Richard M. Cooper, Camden, 1816-1874
64. 1857—Thomas Ryerson, Newton, 1821-1887
65. 1858—Isaac Pierson Coleman, Pemberton, 1804-1869
66. 1859—John R. Sickler, Mantua, 1800-1886
67. 1860—William Elmer, Bridgeton, 1814-1889

Year of Election

68. 1861—John Blane, Perryville, 1802-1885
69. 1862—John Woolverton, Trenton, 1825-1888
70. 1863—Theodore R. Varick, Jersey City, 1825-1887
71. 1864—Ezra M. Hunt, Metuchen, 1830-1894
72. 1865—Abraham Coles, Newark, 1813-1891
73. 1866—Benjamin R. Bateman, Bridgeton, 1807-1883
74. 1867—John C. Johnson, Blairstown, 1828-1907
75. 1868—Thomas J. Corson, Trenton, 1828-1879
76. 1869—William Pierson, Orange, 1796-1882
77. 1870—Thomas F. Cullen, Camden, 1822-1877
78. 1871—Charles Hasbrouck, Hackensack, 1818-1877
79. 1872—Franklin Gauntt, Burlington, 1823-1900
80. 1873—Thomas J. Thomason, Perrineville, 1833-1880
81. 1874—George H. Larison, Lambertville, 1831-1892
82. 1875—William O'Gorman, Newark, 1824-1887
83. 1876—John V. Schenck, Camden, 1825-1882
84. 1877—Henry R. Baldwin, New Brunswick, 1829-1902
85. 1878—John S. Cook, Hackettstown, 1827-1900
86. 1879—Alexander W. Rogers, Paterson 1814-1905
87. 1880—Alexander N. Dougherty, Newark, 1822-1882
88. 1881—Lewis W. Oakley, Elizabeth, 1828-1888
89. 1882—John W. Snowden, Blackwood, 1823-1888
90. 1883—Stephen Wickes, Orange, 1813-1889
91. 1884—Phanett C. Barker, Morristown, 1835-1903
92. 1885—Joseph Parrish, Burlington, 1818-1891
93. 1886—Charles J. Kipp, Newark, 1838-1911
94. 1887—John W. Ward, Trenton, 1840-1916
95. 1888—H. Genet Taylor, Camden, 1837-1916
96. 1889—Beriah A. Watson, Jersey City, 1836-1892
97. 1890—James S. Green, Elizabeth, 1829-1892
98. 1891—Elias J. Marsh, Paterson, 1835-1908
99. 1892—George T. Welch, Passaic, 1845-1924
100. 1893—John G. Ryerson, Boonton, 1834-1916
101. 1894—Obadiah H. Sproul, Flemington, 1844-1925
102. 1895—William Elmer, Trenton, 1840-1908
103. 1896—Thomas J. Smith, Bridgeton, 1841-1932
104. 1897—David C. English, New Brunswick, 1842-1924
105. 1898—Claudius R. P. Fisher, Bound Brook, 1859-1927
106. 1899—Luther M. Halsey, Williamstown 1858-1921
107. 1900—William Pierson, Jr., Orange, 1830-1900
108. 1901—John D. McGill, Jersey City, 1846-1912
109.—1902—Edward L. B. Godfrey, Camden, 1850-1913
110. 1903—Henry Mitchell, Asbury Park, 1845-1919
111. 1904—Walter B. Johnson, Paterson, 1852-1922
112. 1905—Henry W. Elmer, Bridgeton, 1847-1907
113. 1906—Alexander Marcy, Jr., Riverton 1860-1934
114. 1907—Edward J. Ill, Newark, 1854-1942
115. 1908—David St. John, Hackensack, 1850-1917
116. 1909—Benjamin A. Waddington, Salem, 1842-1917

Year of Election

117. 1910—Thomas H. MacKenzie, Trenton, 1847-1920
118. 1911—David Strock, Camden, 1850-1927
119. 1912—Norton L. Wilson, Elizabeth, 1861-1931
120. 1913—Enoch Hollingshead, Pemberton, 1843-1924
121. 1914—Frank D. Gray, Jersey City, 1857-1916
122. 1915—William J. Chandler, South Orange, 1842-1927
123. 1916—Philip Marvel, Atlantic City, 1856-1938
124. 1917—William G. Schauffler, Lakewood, 1862-1933
125. 1918—Thomas W. Harvey, Orange, 1853-1938
126. 1919—Gordon K. Dickinson, Jersey City, 1855-1930
127. 1920—Philander A. Harris, Paterson, 1852-1924
128. 1921—Henry B. Costill, Trenton, 1860-1935
129. 1922—James Hunter, Jr., Westville, 1866-1931
130. 1923—Wells P. Eagleton, Newark, 1865-1946.
131. 1924—Archibald Mercer, Newark, 1849-1931 . Resigned.
1924—**LUCIUS F. DONOHOE**, Acting President
132. 1925—**LUCIUS F. DONOHOE**, Bayonne, born 1868
133. 1926—James S. Green, Jr., Elizabeth, 1864-1936
134. 1927—Walt P. Conaway, Atlantic City, 1873-1945
135. 1928—Ephraim R. Mulford, Burlington, 1880-1939
136. 1929—Andrew F. McBride, Paterson, 1869-1946
137. 1930—**GEORGE N. J. SOMMER**, Trenton born 1874
138. 1931—John F. Hagerty, Newark, 1869-1937
139. 1932—A. Haines Lippincott, Camden, 1867-1937
140. 1933—**FREDERIC J. QUIGLEY**, Jersey City, born 1883
141. 1934—**LANCELOT ELY**, Somerville, born 1875
142. 1935—**MARCUS W. NEWCOMB**, Browns Mills, born 1880
143. 1936—Francis R. Haussling, Newark, 1875-1941 —resigned
144. 1936—**SPENCER T. SNEDECOR**, Hackensack, born 1900
145. 1937—**WILLIAM G. HERRMAN**, Asbury Park, born 1890
146. 1938—William J. Carrington, Atlantic City, 1884-1947
147. 1939—**E. ZEH HAWKES**, Newark, born 1865
148. 1940—**WATSON B. MORRIS**, Springfield, born 1878
149. 1941—Thomas K. Lewis, Camden, 1887-1949
150. 1942—Elias J. Marsh, Paterson, 1875-1943
151. 1943—**RALPH K. HOLLINSHED**, Westville, born 1884
152. 1944—**JOSEPH F. LONDRIGAN**, Hoboken, born 1884
153. 1945—**SAMUEL ALEXANDER**, Park Ridge, born 1888
154. 1946—Frank G. Scammell, Trenton, 1877-1947
155. 1947—**ROYAL A. SCHAAF**, Newark, born 1892
156. 1948—**J. HOWARD HORNBERGER**, Roebling, born 1896
157. 1949—James F. Norton, Jersey City, 1892-1950.
158. 1950—**ALDRICH C. CROWE**, Ocean City born 1898.

The names of living Fellows are in bold face type.

HONORARY MEMBERS

	Year of Election	
1.	1930	Joseph E. Raycroft, Princeton
2.	1939	Nathan B. Van Etten, New York
3.	1939	Haven Emerson, New York
4.	1945	Lucius F. Donohoe, Bayonne
5.	1947	Mr. John S. Thompson, Glen Ridge
6.	1948	Mr. William H. MacDonald, Trenton
7.	1949	Mr. George E. Stringfellow, Glen Ridge

EMERITUS MEMBERS

Year of Election		
1949	Areson, William H.,	DeSoto, Florida
1948	Atwell, David R.,	East Orange
1949	Baird, Thompson M.,	Point Pleasant
1950	Beshlian, Hagop K.,	Paterson
1950	Birdsall, Clarence A.,	St. Petersburg, Fla.
1950	Carlisle, John H.,	Passaic
1949	Carman, Fletcher F.,	Montclair
1949	Chamberlain, Aims R.,	Maplewood
1950	Chattin, J. Franklin,	Maplewood
1948	Connell, John,	Jersey City
1950	Craig, Henry A.,	Somerville
1949	Darlington, Emlen P.,	New Lisbon
1949	Davison, Royden W.,	Miami, Fla.
1950	Dias, Joseph L.,	Tampa, Fla.
1949	Eaton, Arthur T.,	Haddon Heights
1949	Emerson, Linn,	Orange
1949	Fell, Alton S.,	Trenton
1948	Flitcroft, William,	Waukesha, Wisc.
1949	Foster, Herbert W.,	Montclair
1948	Gille, Hugo,	Jersey City
1950	Glazebrook, Francis H.,	Rumson
1949	Guidi, Guido M.,	Elizabeth
1950	Halsey, Levi W.,	Montclair
1950	Hampton, George R.,	Orange, Conn.
1949	Harman, William J.,	Trenton
1950	Harvey, John W.,	Bayonne
1949	Hunter, Edward R.,	Delanco
1948	Keegan, Thomas D.,	Deal
1949	Lawrence, William H.,	DeLand, Fla.
1949	Lovett, Joseph C.,	Ardsley, Pa.
1949	Lowy, Otto,	West Orange
1950	McCullough, Walter A.,	Daytona Beach, Fla.
1950	Mecray, Paul M.,	Camden
1950	Meeker, Irving A.,	Upper Montclair
1949	Metzer, Emma P. W.,	Riverside
1949	Mierau, Ernest W.,	Irvington
1950	Mills, Clifford,	Morristown
1950	Neal, Charles B.,	Millville
1949	Orton, George L.,	Rahway
1950	Preston, Perry B.,	Newark
1949	Price, Nathaniel G.,	Sarasota, Fla.
1949	Ranson, Briscoe B., Jr.,	East Orange
1950	Richardson, Arthur H.,	Montclair
1949	Richardson, Emma M.,	Camden
1949	Ritter, John J.,	Plainfield, Mass.
1948	Rosecrans, James H.,	Hoboken
1950	Russell, David L.,	Jersey City
1949	Schachter, Harry A. H.,	Deal
1949	Scribner, Charles H.,	Paterson
1948	Selinger, Samuel,	Lake Worth, Fla.
1950	Seward, Frederic H.,	Madison
1948	Sexsmith, George H.,	Los Angeles, Calif.
1949	Sill, John B.,	Fort Lauderdale, Fla.
1949	Simkins, Raymond,	Bridgeton
1949	Smith, Byron J.,	East Orange
1949	Smith, Joseph J.,	Newark
1950	Snavely, Earl H.,	Jacksonville Beach, Fla.
1949	Szerlip, Leopold,	Newark
1949	Teeter, Charles E.,	Newark
1950	Thomas, Harry G.,	New York City
1949	Tidaback, John D.,	Summit
1949	Timlin, James W.,	Arlington
1949	Turner, Irvine F. P.,	Titusville
1950	Twitchell, Adelbert B.,	East Orange
1950	VanderClock, Cornelius,	Passaic
1950	Ward, Gertrude,	Bloomfield
1950	Williams, Hiram,	Montclair
1948	Woelfle, Henry E.,	East Orange
1950	Wood, Oran A.,	Paulsboro
1950	Wrensch, Alexander E.,	Montclair

AN ALPHABETICAL LIST OF THE MEMBERS OF THE MEDICAL SOCIETY OF NEW JERSEY

The figures in parentheses refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.

COMPILED MARCH 1, 1951

A

ACTIVE MEMBERS

Abarbanel, Milton G., 271 Union st., Hackensack (2)
Abbott, Charles C., 32 Main st., Lodi (2)
Abel, Arthur R., Orange Mem. Hosp., Orange (7)
Abel, Henri E., 339 Union av., Elizabeth (20)
Abers, Bernard D., 565 Summit av., Jersey City (9)
Abey, William J. H., 65 S. Main st., Pennington (11)
Abraham, Albert, 139 South st., Morristown (14)
Abramo, Anthony E., 141 Glen av., Midland Pk. (16)
Abrams, Abram B., 299 Clinton av., Newark (7)
Abrams, Henry, 195 Nassau st., Princeton (11)
Abramson, Harry, 14 W. Young st., Somerville (18)
Abramson, Solomon, 1181 Jaques av., Rahway (20)
Ackerhalt, Martin J., 430 Clifton av., Clifton (16)
Ackerman, Arthur F., 129 Summit av., Summit (20)
Ackerman, Milton, Atlantic City Hosp., Atl. City (1)
Ackley, David B., 21 N. Clinton av., Trenton (11)
Adelman, Benjamin B., 186 Clinton av., Newark (7)
Adler, Fritz F., 777 Market st., Paterson (16)
Adler, Howard E., 103 Livingston av., N. Br'sw'k(12)
Adler, Lydia, 103 Livingston av., N. Brunswick (12)
Adler, Samuel, 229 Broad st., Red Bank (13)
Africano, Scipio H., 526 15th st., Union City (9)
Agayoff, John D., 127 S. Wash'gton av.,Bergenf'd(2)
Agnew, Hobart M., 22 Plymouth st., Montclair (7)
Agolia, Michael W., 2201 Palisade av., Union City(9)
Ainsworth, George E., Army (16)
Aitken, Frank J., 62 N. Pearl st., Bridgeton (6)
Aitken, H. M., 4238 Mohawk dr., Madison, Wisc.(19)
Albano, Edwin H., 144 Harrison st., East Orange(7)
Albano, Frank J., 535 N. Seventh st., Newark (7)
Albert, Perry, 2780 S. Broad st., Trenton (11)
Albini, Mario, 204 Fifth st., Hoboken (9)
Albrecht, William J., 46 Grove st., Somerville (18)
Albright, Louis F., 601 Grand av., Asbury Park (13)
Alcaro, Joseph A., 2 Perry st., Morristown (14)
Alessi, Alfred A., 174 Merrison st., Teaneck (2)
Alexander, John W., 308 Main st., Orange (7)
Alexander, Samuel, 108 Pascack rd., Park Ridge (2)
Alexander, Stewart F., 108 Pascack rd.,Park R'ge(2)
Alexander, Walter G., 48 Webster pl., Orange (7)
Allan, James S., 144 Harrison st., East Orange (7)
Allar, Ellis H., 115 St. Charles pl., Atlantic City (1)
Allegrante, Anthony J., Wash'gt'nV.rd.,Mart'sv'e(18)
Allen, Arthur A., 365 Park av., Paterson (16)
Allen, Chester B., Jr., 42 Gordonhurst av.,M'ntcl'r(7)
Allen, Edwin J., 269 Carroll st., Paterson (16)
Allen, James M., 585 Main st., Passaic (16)
Allen, Raymond N., 144 Harrison st., E. Orange (7)
Allen, Samuel L., 170 Union rd., Roselle Park (20)
Allman, David B., 104 St. Charles pl., Atl. City (1)
Alonzo, Gerard J., 477 Stuyvesant av.,Lyndhurst(16)
Alpert, Edward, 661 Jersey av., Jersey City (9)
Alpert, Sidney, 321 Second st., Lakewood (15)
Alpren, Bernard F., 17 Church st., Paterson (16)
Alter, Nicholas M., 410 Fairmount av.,Jersey City(9)
Alterbaum, George, 25 Park av., Caldwell (7)
Altschul, Frank J., 177 Garfield av., L. Branch (13)
Amato, Charles P., 500 Broadway, Camden (4)
Amato, Romello J., 1134 Broad st., Newark (7)
Ambrose, Anthony, 15 Washington st., Newark (7)
Ambrose, Francis, 377 Park av., Paterson (16)
Ambrose, Robert R., 304 E. High st., Bd. Brook (18)
Amdur, Louis A., 2540 Boulevard, Jersey City (9)
Amster, Milton W., 439 Meeker st., South Orange(7)
Anastor, Herb't P.,E.Landis av.& Vas'r pl.,Vinel'd(6)
Anderson, John F., 195 College av., N. Brunsw'k(12)
Anderson, Reuben M., 15 Anderson st.,Hackens'k(2)
Anderson, Richard D., 465 High st., Burlington (3)
Anderson, Robert C., 686 Mt. Prospect av.,New'k(7)
Anderson, William A., 1310 Broad st., Bloomfield(7)
Andrews, Clarence L., 1616 Pacific av., Atl. City (1)
Andrick, Eugene A., 99 Sheridan av., Hohokus (2)
Andrus, David L., 805 Cooper st., Camden (4)
Angelillo, Marc C., 639 Mt. Prospect av., Newark (7)
Angelo, Joseph A., 845 Third st., Secaucus (9)
Angioletti, Louis V., 1617 Palisade av., Fort Lee (2)
Annitto, John E., 170 Belmont av., Jersey City (9)
Anrig, Grace E., 613 Summit av., Union City (9)
Anson, Leon J., 400 Center st., Garwood (20)
Antonius, Nicholas A., 27 W. Market st., Newark(7)
Antopol, William A., 24 Stengel av., Newark (7)
Anuario, Charles B., 365 S. Centre st., Orange (7)
Apfelbaum, Fred'r'k M.,17 N.Tenth st.,Kenilw'th(20)
Apple, Stanley B., 1520 Brunswick av., Trenton (11)
Applebaum, Irving L., 31 Lincoln Park, Newark (7)
Applestein, Robert, 375 W. State st., Trenton (11)
Appleton, Ralph, Lincoln av., Point Pleasant (15)
Appold, George D., 60 E. Church st., Bergenfield (2)
Apter, Abraham H., 45 Church st., Paterson (16)
Aria, Charles J., 1818 Boulevard, Jersey City (9)
Aria, Michael H., 31 Glenwood av., Jersey City (9)
Armstrong, Lorrimer B.,121 S.Euclid av.,Westf'd(20)
Arndt, Frank R., 7500 Bergenline av., N. Bergen (9)
Arnold, Harriet J., 241 E. Commerce st.,Bridgeton(6)
Aronis, Harry R., 935 W. State st., Trenton (11)
Arnoff, Herman L., 225 Claremont av., Jer. City (9)
Aronowitz, Harry T., 923 Avenue C, Bayonne (9)
Arons, Harry, 31 Lincoln Park, Newark (7)
Aronsohn, Charles M., 214 E. 33rd st., Paterson (16)
Artaserse, George V., 185 Bergen av., Jersey City(9)
Arthur, Frances H., 138 Westfield av., Elizabeth(20)
Asbell, Nathan, 326 Cooper st., Camden (4)
Ash, Arthur F., 710 Boulevard, E., Weehawken (9)
Ash, Frank W., 180 Carroll st., Paterson (16)

Ashley, Harmon H., 34 Mercer st., Princeton (11)
Assante, M. Hugo, 120 Wt. Horse Pike, Clementon(4)
Aszody, Paul, 340 Waverly av., Newark (7)
Athey, Kenneth L., 3616 Westfield av., Camden (4)
Atkinson, James Q., 65 Mill st., Vincentown (3)
Atkinson, John M., 93 Greenwood av., Madison (14)
Atkinson, Sam C., Jr., 129 Summit av., Summit (14)
Atwood, Edward A., 500 Market st., Paterson (16)
Auerbach, Friedrich, 490 Stuyvesant av.,Irvingt'n(7)
August, Jacob, 149 Rhode Island av.,East Orange(7)
Austin, Henry J., 96 Bellevue av., Trenton (11)
Austin, Thomas R., 19 Holly st., Cranford (20)
Autorino, Ralph R., 10 Harrison av., Montclair (7)
Averbach, Jacob, 463 Clifton av., Clifton (16)
Avery, Philip S., Woodland ter., Bound Brook (12)
Axilrod, Herbert D., 303 N. Wilson av.,Margate C.(1)
Axilrod, Maurice H., 2620 Pacific av., Atl. City (1)
Axinn, Charles, 146 W. Gibbons st., Linden (20)
Ayars, Paul K., Main & Temperance sts.,P.Norris(6)
Aymar, Dorothy, 608 Fourth st., Union City (9)

ASSOCIATE MEMBERS

Abramo, Edward, 141 Glen av., Midland Park (16)
Ackerman, Joseph R.,Fitkin Mem. Hosp.,Nept'ne(13)
Ainslie, William H., Cooper Hospital, Camden (12)
Angiuoli, Domenic, 449 Minton pl., Orange (7)
Arcomano, Nicholas J., 335 Second av.,L.Branch(13)
Areson, Robert H., 153 Bellevue av., U.Montclair(7)
Auerhan, Harold S., 142 Passaic av., Passaic (16)
Ayers, John R., Jr., 140 River rd., Red Bank (13)

B

ACTIVE MEMBERS

Babbitt, Hugh M., Jr., 950 Park av., Plainfield (20)
Bachmann, William, 87 Hillcrest ter., E. Orange (7)
Bacon, Mary, 278 E. Commerce st., Bridgeton (6)
Bacote, Ernest F., 680 High st., Newark (7)
Baeder, Robert L., 6 Rugby rd., Cedar Grove (7)
Baer, Irving, 141 Broad st., Red Bank (13)
Baeseman, R. Winfield, 112 Main st., Allenhurst(13)
Bahnson, Conrad M., 170 Bowers st., Jersey City (9)
Baime, Jules E., 72 Prospect st., East Orange (7)
Baiocchi, Pascal J., 513 Sanford av., Newark (7)
Baker, Augustus L., 389 W. Blackwell st., Dover(14)
Baker, Augustus L., Jr., 389 W. Bl'kw'l st., Dover(14)
Baker, Banks S., 618 Benson st., Camden (4)
Baker, Elsworth F., 58 Reckless pl., Red Bank (13)
Baker, Maclyn F., 987 Sanford av., Irvington (7)
Baker, Maurice E., 1149 Kaighn av., Camden (4)
Baker, Philip W., High Bridge (10)
Balakian, Gerard, 131 Ayers ct., W. Englewood (2)
Baldini, Charles F.,Jr.,1216 Palisade av.,Union C.(9)
Baldini, Howard E., 513 15th st., Union City (9)
Baldwin, Charles H., 2829 Atlantic av., Atl. City (1)
Baldwin, John F., 58 Ayers ct., W. Englewood (2)
Balis, Samuel B., 67 Baldwin av., Newark (7)
Balles, Edward S., 392 Park av., Paterson (16)
Balogh, William A., 315 Dunellen av., Dunellen (12)
Balsamo, Anthony J., 16 Enos pl., Jersey City (9)
Balsamo, Joseph J., 375 S. 12th st., Newark (7)
Balsbaugh, Edward F., 440 E. Broad st., Westf'd(20)
Balson, Zachary D. B., 49 Osborne ter., Newark (7)
Balter, Abraham W., Veterans Hospital, Lyons (18)
Balze, Henry R., 218 Broad av., Leonia (2)
Bambara, Aurelius J., 6 N. Main st., Flemington(10)
Banta, Edward E., 64 Peters pl., Red Bank (13)
Banta, Raymond E., 288 Orchard pl., Ridgewood (2)
Bar, Samuel, 56 Main st., Englishtown (13)
Barb, Kirk B., 1303 Princess av., Camden (4)
Barbano, Alfred J., 225 Hale st., New Brunswick(12)
Barbarito, William N., 135 Bentley av., Jer City (9)
Barbash, Roslyn H. W., 835 Red rd., Teaneck (2)
Barbella, Joseph D., 498 N. 13th st., Newark (7)
Barberio, A. Arthur, 1337 Orange av., Union (20)
Barbour, George E., 118 W. High st., Somerville(18)
Bardfeld, Benjamin B., 1080 E. Landis av.,Vinel'd(6)
Barkhorn, Charles W., 223 Roseville av., Newark(7)
Barlow, Bernard G., Army (2)
Barlow, Frank A.,Veterans Hosp.,Bay Pines,Fla.(16)
Barlow, G. Barton, 157 Engle st., Englewood (2)
Barlow, John D., 232 Stockton st., Hightstown (11)
Barnard, Frank G., 79 Hawthorne pl., Montclair (7)
Barnes, William J., 155 Engle st., Englewood (2)
Barnett, Jack, 388 12th av., Paterson (16)
Barnett, Lester A., 422 Deal Lake dr.,Asbury P.(13)
Barnett, Robert W., 601 Grand av., Asbury Park(13)
Barnhardt, Russell A., 10 Deerfield rd., Parlin (12)
Barnshaw, Harold D., 524 Cooper st., Camden (4)
Barolsky, Benjamin, 452 15th av., Paterson (16)
Baron, Herbert A.,200 Burton av.,Hasbrouck Hts.(2)
Baron, Leo E., 26 Prospect pl., N. Plainfield (20)
Barone, Francis A., 94 Lembeck av., Jersey City (9)
Barone, Leo J., 392 Van Houten st., Paterson (16)
Barr, Joseph, 975 Madison av., Paterson (16)
Barrett, James, 252 N. Arlington av., E. Orange (7)
Barrett, John E., 220 Woodside av., Newark (7)
Barrett, Joseph F., 230 Parker av., Maplewood (7)
Barroway, James N., 2714 Westfield av., Camden (4)
Barrows, Victor I., 106 W. 11th st., N. Wildwood (5)
Barry, R. Grant, 908 W. State st., Trenton (11)
Barton, Amy S., 509 Chester av., Moorestown (3)
Baruch, Hilde, 202 Stiles st., Elizabeth (20)
Baruch, Rudolf J., 202 Stiles st., Elizabeth (20)
Basralian, Joseph B.,333 Wash'gt'n pl.,Hasb'kHts(2)
Bass, Morris, 414 Chancellor av., Newark (7)
Bass, Rose D., 54 Lyons av., Newark (7)
Bassett, Lavern C.,320 New Market rd., Dunell'n(12)
Bassett, Norman H., 1616 Pacific av., Atlantic C.(1)
Bassett, Samuel, 355 Washington av., Dumont (2)
Battaglia, Albert J., 104 Grandv'w rd.,Ardmore,Pa.(8)
Battaglia, Richard S., 67 Wilson av., Neptune (20)
Battin, Richard P., 149 Prospect st., Passaic (16)
Bauer, John T., 312 E. Second st., Moorestown (3)
Baum, Felix, 406 Centre st., South Orange (7)
Baum, Lewis F., 406 Centre st., South Orange (7)
Baum, Otto S., 406 Centre st., South Orange (7)
Baum, Samuel, 10 Osborne ter., Newark (7)
Bauman, Everett O., 862 S. 13th st., Newark (7)
Bauman, Rush C., 92 High st., Nutley (7)
Baxt, Sidney J., 544 21st av., Paterson (16)
Bayer, Eric C., 307 E. Madison av., Dumont (2)
Bayer, Harold J., 1616 Pacific av., Atlantic City (1)
Beairsto, Everett B., 224 W. State st., Trenton (11)
Beakes, Charles H. C., 155 Engle st., Englewood (2)
Beall, William T., 509 N. Broad st., Woodbury (8)
Beatty, Hannah J., Clinton Farms, Clinton (10)
Beaver, Jennie D., 44 Elm st., Morristown (14)
Bebbino, Anthony, Springfield av., Berkeley Hts.(20)
Bechet, Paul E., 1364 North av., Elizabeth (20)
Becker, C. Frederick, 620 Benson st., Camden (4)
Becker, Frank F., 337 E. Ridgew'd av.,Ridgew'd (2)

Becker, George L., 646 E. 28th st., Paterson (16)
Becker, Leo V., 69 Ward st., Paterson (16)
Becker, Martin, 66 Hawthorne av., East Orange (7)
Becker, Marvin C., 299 Clinton av., Newark (7)
Becker, Melchior E.,Jr., 35 N.Warren st.,Woodb'y(8)
Becker, Meyer, 219 Amboy av., Metuchen (12)
Becker, Sidney D., 140 Maple pl., Keyport (12)
Becker, Sylvia F., 299 Clinton av., Newark (7)
Bednarz, Stephen, 219 Maple av., Wallington (2)
Bedrick, John J., 945 Avenue C, Bayonne (9)
Beer, Sanel, 182 Tucker av., San Francisco, Cal. (7)
Behrens, Herman H.E., 312 Webster av., Jer. City(9)
Beideman, Casper M., 116 E. Maple av.,Merch'tv'e(4)
Beim, Norbert, 669 Broadway, Paterson (16)
Beir, Ily R., 3900 Atlantic av., Atlantic City (1)
Beirne, Donald P., 435 N. Arlington av.,E.Orange(7)
Beisler, Lawrence G., 1528 N. Broad st., Hillside(20)
Bekampis, Eugene H., 315 E. Maple av., Mech'tv'e(4)
Belafsky, Henry A., 150 Green st., Woodbridge (12)
Belfer, Jacob J., 1235 Chambers st., Trenton (11)
Belford, Ralph J., 90 Nassau st., Princeton (11)
Beling, C. Abbott, 15 Washington st., Newark (7)
Bell, Horace O., Es. Co. Isola. Hosp., Belleville (7)
Bellak, Ellis R., Leesburg (6)
Belle, Louis, 931 Jefferson av., Elizabeth (20)
Belliveau, William J., 737 Coolidge st., Plainfield(20)
Bellucci, Frank D., 300 Mt. Prospect av., Newark(7)
Belott, August V., 129 Main st., West Orange (7)
Bender, Louis, 285 Ridgewood av., Newark (7)
Bender, Theodore, 666 Broadway, Paterson (16)
Bengelsdorf, Aron, 29 Clinton pl., Newark (7)
Benjamin, Harold C., 59 Crescent av., Jersey City(9)
Benjamin, Joseph F., 203 Godwin av., Ridgew'd (16)
Benko, George 266 High st., Perth Amboy (12)
Bennett, Robert E., N. J. State Hosp., Trenton (11)
Bensel, Arlington,Jr.,8 Bunny Cir.,Newt'v'le,Mass(7)
Bensley, Maynard G., 129 Summit av.,Summit (20)
Bentley, David F., Jr., 406 Cooper st., Camden (4)
Bentley, John, Jr.,St. John's Hosp.,Brooklyn,N.Y.(20)
Benz, Francis J., 30 Lum av., Chatham (14)
Benz, George L., 251 S. Tenth st., Newark (7)
Berardinelli, Carmine G., 92 Eighth av., Newark (7)
Berenson, Samuel J., 1012 E. Jersey st.,Elizab'th(20)
Beres, Albert J., 189-A Valley Blvd., Wood-Ridge(2)
Berg, Samuel, 156 Roseville av., Newark (7)
Bergen, Marshall, 100 Bentley av., Jersey City (9)
Berger, Harold R., 250 Elizabeth av., Elizabeth (20)
Berger, William A., 346 Roseville av., Newark (7)
Bergman, M. Weinstock, 31 Lincoln Park, New'k(7)
Bergmann, Ewald H., 44 Bank st., Sussex (19)
Bergsma, Daniel, N.J.State Health Dept.,Trenton(11)
Berk, M. David, 505 Wanaque av., Pompton L. (16)
Berke, Raynold N., 430 Union st., Hackensack (2)
Berkhout, Peter G., 106 Haledon av., Paterson (16)
Berkow, Abraham, 417 Main st., Hackensack (2)
Berkow, Bori, 245 State st., Perth Amboy (12)
Berkow, Samuel G., 280 Hobart st.,Perth Amboy(12)
Berkowitz, Benj., 188 E. Commerce st.,Bridgeton (6)
Berlin, Joseph I., 2465 Boulevard, Jersey City (9)
Berlin, Morris R., 84 Girard pl., Newark (7)
Berliner, Harry M., Veterans Admin., Lyons (18)
Berman, H. Robert, 299 Clinton av., Newark (7)
Berman, Jacob J., 409 Market st., Trenton (11)
Berman, Sol, 351 Rahway av., Elizabeth (20)
Bernell, Stanley P., 1207 Haddon av., Camden (4)
Berner, Benjamin, 465 Park av., Paterson (16)
Berney, Irving, 31 Lincoln Park, Newark (7)
Berney, Ruth V., 16 Lyons av., Newark (7)
Bernhard, William G., 79 Minninsink rd., Short H.(7)
Bernheisel, Louis E., Marshallville rd., Tuckahoe(5)
Bernson, Samuel T.,505 Wanaque av.,Pompt'n L.(16)
Bernstein, Arthur, 89 Lincoln Park, Newark (7)
Bernstein, Benedict J., 871 Parke av., Elizabeth (20)
Bernstein, Bertram, 329 Clearfield av., Trenton (11)
Bernstein, Julius, 584 S. Tenth st., Newark (7)
Berry, C. Hartley, 129 Summit av., Summit (20)
Berry, Leonard M., 205 Nassau st., Princeton (11)
Bertha, Nicholas A., 83 S. Main st., Wharton (14)
Besson, Franklin J., 999 Clinton av., Irvington (7)
Betancourt, Raul R., 406 Cooper st., Camden (4)
Betsch, William F., 220 Pleas'nt Val.av.,Moorest'n(3)
Betts, R. Winfield, 22 N. Main st., Medford (3)
Bew, Richard C., 1217 Pacific av., Atlantic City (1)
Beyer, Othmar J., 42 Laurel av., Irvington (7)
Bianchi, Angelo R., 184 Hunterdon st., Newark (7)
Bianco, John J., 318 Cooper st., Camden (4)
Biber, David, 900 Stuyvesant av., Union (20)
Bibighaus, Warren Y., 313 4th av., Haddon Hts. (4)
Biczak, Arkad K., 311 Lexington av., Clifton (16)
Bieber, Harold B., 115 Fairview av., Jersey City (9)
Bielski, Johannes F., 180 Somerset st.,N.Br'nsw'k(12)
Bigliani, Urban R., 7308 Boulevard, N. Bergen (9)
Binder, Charles I., 833 South 13th st., Newark (7)
Binder, Joseph, 101 Third av., Long Branch (13)
Bird, Frank L., 8 Main st., Netcong (14)
Bird, Frank L., Jr., Army (14)
Bird, Ivan F., 1213 Hamilton av., Trenton (11)
Bitsack, Joseph W., Army (2)
Biunno, Anthony J., 61 Hillcrest ter., E. Orange (7)
Black, LeRoy W., 33 W. Passaic av., Rutherford (2)
Black, Maskell B., 128 E. High st., Glassboro (8)
Black, Max S., 1320 St. George av., Linden (20)
Blackburne, George, 490 Central av., Newark (7)
Blackwell, Enoch, 28 W. State st., Trenton (11)
Blaisdell, C. Byron, 601 Grand av., Asbury Park (13)
Blake, Albert J., 640 Broadway, Paterson (16)
Blake, Dexter B., R.F.D. 1, Far Hills (14)
Blakey, Abram P., 144 Wegman Pkwy., Jer. City (9)
Blanchard, Kenneth, 144 Harrison st., E. Orange (7)
Blasi, Benjamin, 150 Hunterdon st., Newark (7)
Blasi, Clifford, 26 Longfellow av., Newark (7)
Blatt, David, 737 Jefferson av., Elizabeth (20)
Blaugrund, Samuel, 833 W. State st., Trenton (11)
Blaustein, Maurice L., 859 S. 13th st., Newark (7)
Bleasby, Charles B., 136 Passaic st., Garfield (2)
Bleiberg, Jacob, 31 Lincoln Park, Newark (7)
Blenkle, Victor A., 140 Chadwick rd., Teaneck (2)
Bloch, Harry, 613 N. Broad st., Elizabeth (20)
Block, Marcus T., 316 Mt. Prospect av., Newark (7)
Block, Max, 48 N. Fullerton av., Montclair (7)
Block, Milton, 320 Union av., Irvington (7)
Bloom, G. Homer, 674 Hillcrest Blvd., Phillipsb'g(21)
Blum, Milton, 41 Tonnele av., Jersey City (9)
Blumberg, A.William, 647 Penn'gton av.,Trenton(15)
Blumberg, Jack, 504 Westminster av., Elizabeth(20)
Blythe, Rowland P., 30 Springf'd av., Cranford (20)
Bobadilla, Juan E. B., 293 S. Main st., Wharton (14)
Bocchini, Joseph A., 366 S. 12th st., Newark (7)
Boehm, Herbert, 610 Salem av., Elizabeth (20)
Bogacz, John, 3288 Boulevard, Jersey City (9)
Bohl, Louis J., 320 Broadway, Paterson (16)
Bokor, Emery, 819 S. 12th st., Newark (7)
Boland, Lucy E., 27 Washington av., Arlington (9)
Bolanowski, Kasimier J., 145 Marsh'l st.,Eliz'b'h(20)
Bolten, Bernard, 377 Osborne ter., Newark (7)
Bomar, Wirrion, 419 Spooner av., Plainfield (20)
Bombardieri, Anthony, 251 Centre st., Nutley (7)
Bonanno, Peter J., 226 Engle st., Englewood (2)
Bonelli, William R., Army (7)
Bongiorno, Henry D., 516 River st., Paterson (16)
Bonnet, W. Laurence, 2791 Not'gh'm wy.,M'rc'rv'e(11)
Bono, Joseph J., 631 Anderson av., Cliffside Park (2)
Bonomo, Michael J., 587 S. Tenth st., Newark (7)
Boogdanian, Victor H.,316 George st.,N.Br'nsw'k(12)
Bookrajian, Edward N., 8027 Boulevard,N.Bergen(9)
Bookstaver, Barnet S., 241 Cedar lane, Teaneck (2)
Booth, George R., 219 Highland av., Westville (8)
Booth, Herbert W., 4th & Jersey avs., Spring L.(13)
Booth, Walter S., 744 Rahway av., Elizabeth (20)
Booth, William K., 304 William st., Boonton (14)
Borchek, Arthur R.,7523 Broadway,North Bergen(9)
Borkow, Philip, 45 E. Blackwell st., Dover (14)
Born, Joseph, Main st., Lincoln Park (16)

Bornstein, David, 566 Broadway, Paterson (16)
Bornstein, Paul K., 601 Grand av., Asbury Pk. (13)
Borow, Benjamin, 519 Church st., Bd. Brook (18)
Borow, Henry, 507 Church st., Bound Brook (18)
Borow, Louis S., 507 Church st., Bound Brook (18)
Borow, Maurice, 524 Church st., Bound Brook (18)
Borrella, Dominic D., 476 Hamilton av., Trenton(11)
Borrone, Milton G., 2624 Boulevard, Jersey City (9)
Borrus, Joseph C., 105 Carroll pl., N. Brunsw'k (12)
Borshaw, Hyman, 108 Bentley av., Jersey City (9)
Borsher, Irving P., 306 Ridge st., Newark (7)
Bortone, Frank, 2765 Boulevard, Jersey City (9)
Bosch, Taeke, 290 E. Franklin Tpk., Hohokus (2)
Boselli, Emile H., 614 15th st., Union City (9)
Bossone, Joseph E., 362 Bath av., Long Branch (13)
Bostwick, Delazon S., Cumberland Htl.,Bridget'n(6)
Bostwick, Wallace R., Main st., Blairstown (21)
Botbyl, Burt W., 927 Madison av., Paterson (16)
Botti, John A., 157 Wegman Pkwy., Jersey City (9)
Boudwin, Norman K., 64 Church st., Beverly (3)
Bourns, Edward G., 203 S. Euclid av., Westfield (20)
Boutelle, William E.,Sidney-Kings rd.,Pittstown(10)
Bove, Joseph, 306 Lincoln av., Orange (7)
Bowen, Robert N., 419 Cooper st., Camden (4)
Bowers, F. Clyde, Mountain av., Mendham (14)
Bowersox, Clarence A., 509 N. Broad st.,W'dbury(8)
Bowne, Donald W., Army (13)
Boyd, John B., 31 Oakland st., Red Bank (13)
Boyd, Robert P., 120 Martine av., Fanwood (20)
Boyd, William B., Jr., N. J. Zinc Co., Franklin (19)
Boyer, Charles G., Annandale (10)
Boyer, Paul K., 129 Summit av., Summit (20)
Boyer, Philip A., Jr., 727 River rd., Teaneck (2)
Boyer, Wendell E., Cedarbridge rd., Adamston (15)
Boyers, Sidney S., 413 60th st., West New York (9)
Boyes, James G., Inman av., Plainfield (20)
Boylan, Matthew E., 66 Van Reypen av., Jer. City(9)
Boyle, Francis L., 805 Boulevard, Bayonne (9)
Boysen, Otto T., 2704 Westfield av., Camden (4)
Brackett, Elizabeth R., 371 Franklin av., Nutley (7)
Bradasch, George A., 1415 Central av., Union C. (9)
Bradford, Stella S., 9 Northview av.,U.Montclair(7)
Bradley, Muriel, 126 Lorraine av., Up. Montclair (7)
Bradley, Robert A., 1616 Pacific av., Atlantic City(1)
Brady, Frank J., 502 Sanford av., Newark (7)
Brady, Thomas S., 678 Avenue C, Bayonne (9)
Braitman, Max, 412 60th st., West New York (9)
Brakeley, Elizabeth, 71 Myrtle av., Montclair (7)
Brams, William M., 7 Madison av., Newark (7)
Brancone, Alphonse M., 417 21st av., Paterson (16)
Brandchaft, Bernard, Army (7)
Brandman, Otto, 190 Clinton av., Newark (7)
Branin, Howard S., 200 W. Main st., Millville (6)
Branon, Mark E., 16 W. Passaic av., Rutherford (2)
Brasefield, Edgar N.,218 Chamb'rs st.,Phillipsb'g(21)
Brauer, Charles, 2219 Boulevard, Jersey City (9)
Brauer, Selig L., 2012 Boulevard, Jersey City (9)
Braun, David C., 51 Trinity st., Newton (19)
Braun, Gustav A.,269-A Harrison G'd'ns,E.Orange(7)
Braun, Joseph C., 531 Broad av., Palisades Pk. (2)
Braun, William, 406 Cooper st., Camden (4)
Braunstein, Sigmund C., 424 57th st., W. N. Y. (9)
Braunstein, William P., 1 Bellevue st.,Weeh'wk'n(9)
Braunwarth, Robert J., 555 S.Broad st.,Elizabeth(20)
Brawer, Jerome, 425 Park av., Paterson (16)
Bray, William E., 41 Elizabeth st., Pemberton (3)
Bregman, Alexander, 4 Dempsey av., Edgewater (2)
Bregman, Milton, 81 Union av., Manasquan (13)
Breitstadt, Charles A., 157 Elwood av., Newark (7)
Breme, Julius C., 523 Walnut av., Laurel Springs(4)
Bremer, Kenneth M., 85 S. Harrison st., E.Orange(7)
Brenna, Joseph D., 448 Hamilton av., Trenton (11)
Brennan, Charles L. S., 14 S. Broadway, Glouc'st'r(4)
Brennan, John P., 14 Church rd., Merchantville (4)
Brennan, Ralph J., 16-01 Plaza rd., Fair Lawn (2)
Brescia, James, 29 Franklin Tpk., Waldwick (2)
Bresey, Morris, 42 Broadman Parkway, Jer. City (9)
Breslow, Alexander E., 930 Pierpont st., Rahway(20)
Breslow, Samuel, 157 Market st., Perth Amboy (12)
Brethwaite, Samuel H.,Jr., 129 Summit av.,S'm't(20)
Breuder, Andrew B., Whippany rd., Whippany (14)
Brewer, David R., Jr., 112 N. Broad st.,Woodbury(8)
Brezinski, Edward J., 308 Wash'gt'n st.,P.Amboy(12)
Brick, George J., 43 Cottage st., Jersey City (9)
Briggs, Henry, 144 Harrison st., East Orange (7)
Brill, Robert, Saint Mary's Hospital, Passaic (16)
Brim, Anne J. S., Edgemere Hotel, E. Orange (7)
Brindle, Harry R., 601 Grand av., Asbury Park (13)
Brinning, Elbert C.,Jr.,442 Washington av.,M'tcl'r(7)
Bristol, Frank E., II, Main st., Dayton (12)
Brittain, Elmore G., 4 E. High st., Bound Brook(18)
Brizard, Joseph L., 81 High st., Belleville (7)
Brock, Howard F., 417 W. Broad st., Westfield (20)
Brodek, Hans D., Army (2)
Brodkin, Eva T., 365 Osborne ter., Newark (7)
Brodkin, Henry A., 365 Osborne ter., Newark (7)
Brody, Morton S., 67 Paterson st., N. Brunsw'k (12)
Brogan, Francis B., 600 Broadway, Paterson (16)
Bromberg, Charles B., 107 Lexington av.,Passaic(16)
Bromberg, Jules H., 89 Lincoln Park, Newark (7)
Bronner, Alfred, 47 Burgess pl., Passaic (16)
Brooks, George M., 18 N. Main st.,Cape May Ct.H.(5)
Brooks, Sidney S., 380 12th av., Paterson (16)
Brophy, Francis X., 116 Bentley av., Jersey City (9)
Broselow, Benjamin G., Delsea dr., Franklinville (8)
Brotman, Morton M., 90 Avon av., Newark (7)
Brower, Francis M., III,37 E. Center st.,Woodb'y(8)
Brown, Chester R., 22 Midland av., Arlington (7)
Brown, Edith L., 340 Garfield av., Avon (13)
Brown, Francis J., 326 Richmond av.,Pt.Pleas't(15)
Brown, Francis S., 2216 Shore rd., Northfield (1)
Brown, Frank H., Jr., 327 Chestnut st., RoselleP.(20)
Brown, Harold W., 27 S. Fullerton av., Montclair(7)
Brown, J. Carlisle, 1616 Pacific av.,Atlantic City (1)
Brown, John L., 1019 Cumbermede rd., Palisade (2)
Brown, Kenneth G., 601 Grand av., Asbury Park(13)
Brown, L. Greeley, 173 Madison av., Elizabeth (20)
Brown, Leonard, 24 Salem st., Hackensack (2)
Brown, Lewis W., 160 Roseville av., Newark (7)
Brown, Marcus, 2 Wt. Horse Pk., Haddon Hts. (4)
Brown, Milton B., 72 Roosevelt av., Carteret (12)
Brown, Robert C., 318 N. Second st., Millville (6)
Brown, Stanley L., 517 Cooper st., Camden (4)
Brown, William H., 503 First av., Elizabeth (20)
Browning, Wm. J., 134 N. Center st.,Merchantv'le(4)
Browning, William, III, Navy (4)
Brozdowski, John J., 562½ Jersey av., Jer. City (9)
Brozyna, Mieczyslaw, 194 Carlton av.,E. Rutherf'd(2)
Brunhofer, Andrew, 714 Cedar lane, Teaneck (2)
Bruning, Richard H., 372 Wyoming av.,Maplew'd(7)
Brunkow, Charles D., 31 Lincoln Park, Newark (7)
Brunner, Hans, 417 Mt. Prospect av., Newark (7)
Bruno, Anthony, 1092 Elizabeth av., Elizabeth (20)
Bruzza, George, 415 Washington Blvd., Sea Girt (13)
Buchan, Ronald F., 213 Washington st., Newark(7)
Buchanan, Ralph M. L., 8 Market st., Phillipsb'g(21)
Buchanan, Robert W., 129 Summit av., Summit (20)
Buckley, Jeremiah L., 666 Franklin av., Nutley (7)
Buckley, Paul J., 159 Palisade av., Bogota (2)
Buckley, Richard F., 1122 Garden st., Hoboken (9)
Buckley, Richard T., Jr., 111 E. Main st.,Maple S.(3)
Buckner, Roscoe W. H., 20 Rose st., Newark (7)
Budd, J. Reuben, 230 Lexington av., Passaic (16)
Budnicki, Xavier B., 105 Broad st.,Perth Amboy(12)
Buechle, Carl F., 61 S. Munn av., East Orange (7)
Buermann, August, III, 153 Irvington av., S.Or'ge(7)
Buermann, Robert, 206 Madison av., Lakewood (15)
Buklad, Henry A., 441 Broadway, Passaic (16)
Bull, Louis M., 7 Brook Lane, Maplewood (7)
Bull, William J., 98 Park st., Montclair (7)
Bullen, Victor E., 148 Hamilton av., Paterson (16)
Bump, Samuel C., 505 E. Ridgew'd av.,Ridgew'd(2)
Bunnell, Frederick N., 22 S. Main st., Barnegat (15)
Burbidge, J. Raymond, 163 Nassau st.,Princeton(11)

Burchell, Frank H., 660 Broadway, Paterson (16)
Burell, Vincent A.,218 Chambers st.,Phillipsburg(21)
Burke, Leonard P., 76 Lakeside av., Verona (7)
Burke, Stephen E., 212 First av., Newark (7)
Burkett, J. Paul, 215 Delaware st., Woodbury (8)
Burkett, Wendell J., 16 W. Holly av., Pitman (8)
Burkhardt, Hans E., 1616 Pacific av..AtlanticCity(1)
Burkhead, How'd C.,2319Brown av.,Evanst'n,Ill.(13)
Burn, Victor E., 27 Trinity st., Newton (19)
Burne, John J., 17 Gould av., Newark (7)
Burnett, Charles B., 109 Main st., South River (12)
Burnett, Lawrence F., 386 Roseville av., Newark(7)
Burnham, Lyman, 229 Engle st., Englewood (2)
Burns, Joseph R., 254 S. Olden av., Trenton (11)
Burns, Wilmer F., 267 White Horse Pk.,Audubon(4)
Burokus, William, 21 E. Pleasant av., Maywood (2)
Burpeau, William P., 80 Woodland av., E. Orange(7)
Burrill, Benjamin B., Jr., 83 Park st., Montclair (7)
Burritt, Norman W., 382 Springfield av.,Summit(20)
Burroughs, Edmund W., 701 W.State st.,Trenton(11)
Burstein, Frank, 1115 S. Broad st., Newark (7)
Burstein, Leo Q., 115 Jefferson av., Elizabeth (7)
Burstein, Rachel, 31 Lincoln Park, Newark (7)
Busansky, Samuel T., Trenton rd., Browns Mills(3)
Busch, Herman, 32 Johnson av., Newark (7)
Bush, Archer C., 40 Union st., Montclair (7)
Bush, Ralph K., 23 E. Maple av., Merchantville (4)
Busicco, Philip S., 285 Engle st., Englewood (2)
Butan, Louis, 479 Highland av., Orange (7)
Butcher, Charles, Helslerville (6)
Butenas, Joseph J., 300 First av., Elizabeth (20)
Butler, Samuel S., 1100 Kaighn av., Camden (4)
Butler, Vincent P., 33 Bentley av., Jersey City (9)
Butterfield, Arey A., 657 Main st., Passaic (16)
Buvinger, Charles W.,50 Washington st.,E.Orange(7)
Byck, Louis, 794 S. 11th st., Newark (7)
Byer, M. Yale, 442 Greenwood av., Trenton (11)
Byrne, J. Arthur, 16 Elm st., Morristown (14)
Byrnes, Elizabeth W., 55 S. Maple av., E. Orange (7)
Bythewood, Alton E., Jr., 145 W.Mark't st.,New'k(7)

ASSOCIATE MEMBERS

Babad, Frederick, Army (11)
Bacsik, Edward J., 994 S. Broad st., Trenton (11)
Baum, Samuel, 219 Lexington av., Passaic (16)
Beshlian, William V., 7 Lee pl., Paterson (16)
Bew, Walter T., 22 S. Washington av., Ventnor (1)
Bookstaver, Paul I., 241 Cedar Lane, Teaneck (2)
Bouregy, Thomas K.,163 Terrace av.,Hasbr'kHts.(2)
Brady, Edward A., Jr., 11 Stone st.,N.Brunswick(12)
Branigan, George V.,Jr.,Ramapo Val.rd.,Oakland(16)
Brody, Michael, 228 Livingston av., N. Brunsw'k(12)
Buckler, Arthur S., 127 Nesbit ter.,Irvington (7)

C

ACTIVE MEMBERS

Cagan, Maclyn, 60 Ridge rd., North Arlington (7)
Caggiano, Anthony P., 137 Grove st., Montclair (7)
Caggiano, John D., 140 W. Main st., Penns Gr: (17)
Cahill, Laurence A., 361 Lafayette st., Newark (7)
Calabrese, Angelo, 66 Wilson pl., Irvington (7)
Calabrese, D. John, 114 Rochelle av., Rochelle P. (2)
Calabrese, Dino, 1022 Anderson av., Palisade (2)
Calasibetta, Charles J., 37 Longfellow av., New'k(7)
Caldwell, Delma, Standard Oil Co., Linden (20)
Caldwell, Donald M., 219 N. Arlington av.,E. Or.(7)
Caldwell, George W., 81 E. Clinton av., Tenafly (2)
Caldwell, Julius A., 45 S. Mountain av., Montclair(7)
Caleca, Jack J., Andover (19)
Callahan, Edward J., 124 St. Paul st., Westfield (20)
Calligaro, Egildo A., 288 Parker av., Clifton (16)
Calvert, William C., 225 Gregory av., W. Orange (7)
Calvin, Charles H., 80 Commerce st., P. Amboy(12)
Camarda, Joseph, 15 Union av., Lakehurst (15)
Camche, Leo J., 250 Renner av., Newark (7)
Cameron, Arthur E., 59 Somerset st., Newark (7)
Cameron, C. Paul, 720 Shore rd., Somers Point (5)
Cameron, Joseph H., 720 Shore rd., Somers Pt. (1)
Campana, Vincent R., 386 Fairmount av.,Jer.City(9)
Campbell, Charles P., 397 Prospect av., Hackens'k(2)
Campbell, Everette L., 144 Harrison st., E.Orange(7)
Campbell, James M., 101 S. Central av., Ramsey (2)
Campbell, William, 144 Harrison st., E. Orange (7)
Campo, A. Guy, 401 Broadway, Westville (8)
Campo, Salvatore T., 351 Broadway, Westville (8)
Canaan, Robert, 13-10 Fair Lawn av.,Fair Lawn(16)
Candio, Vincent P., 366 Ridge rd., Lyndhurst (2)
Cangemi, Vito F., 50 Glenwood av., Jersey City (9)
Cannata, Benjamin, 113 Market st., P. Amboy (12)
Cannis, John P., 926 Park av., Plainfield (20)
Cannon, Edward A., 7512 Boulevard, N. Bergen (9)
Canright, Cyril M., 34 Springfield av., Cranford (20)
Cantalupo, Emidio, 95 Nichols st., Newark (7)
Cantelmo, Alphonse L., 144 Harrison st., E. Or. (7)
Cantini, Raphael S., 727 Watchung av., Plainf'd(20)
Capio, Mario D., 293 Broadway, Paterson (16)
Cappiello, William, 352 Seventh av., Newark (7)
Caprio, Orlando G., 428 Third av., Newark (7)
Captanian, Aram A., 166 Main st., Matawan (13)
Caputo, Anthony R., 301 Washington av.,Bellev'le(7)
Carabelli, A. Albert, 306 Hamilton av., Trenton(11)
Carbone, Francesco N., 440 Central av., Orange (7)
Carbone, Ralph, 780 Morningside lane., Ridgef'd (2)
Card, Charles F., 144 W. Milton av., Rahway (20)
Cardinale, Pasquale F., 1405 North av.,Elizabeth(20)
Cardwell, Edgar P., 965 Broad st., Newark (7)
Carey, David S., 11 E. Main st., Freehold (13)
Carey, Joseph, 333 N. Second st., East Newark (9)
Caridi, Salvatore, 431 59th st., West New York (9)
Carlander, Oswald R., 130 N. Broadway, Camden (4)
Carlin, Edward J. M., 1423 Irving st., Rahway (20)
Carlisle, J. Mallory, 550 Hillcrest av., Westfield (20)
Carll, Jesse W., Broad and Giles st., Bridgeton (6)
Carman, Henry E., 37 Selvage av., W. Englewood (2)
Carmona, L. Roberto, 141 Wood st., Tuckerton (15)
Carmona, Manuel G., 128 Bay av., Beach Haven (15)
Caro, Eugene P., 926 Wood av., N., Linden (20)
Carpenter, Cedric C., 97 Hobart av., Summit (20)
Carr, Josephus C., 75 13th av., Newark (7)
Carr, Mary B., 1 Astor pl., Jersey City (9)
Carrigan, Francis P., 305 Roseville av., Newark (7)
Carrol, Wilfred, 51 Ingraham pl., Newark (7)
Carroll, Bruce J., 469 W. Front st., Plainfield (20)
Carroll, C. Walter, 125 Centre st., Trenton (11)
Carroll, Daniel B., Army (14)
Carroll, Thomas R., 754 Anderson av., Cliffside (2)
Carroll, William V., 211 Academy st., Trenton (11)
Carsley, Sidney H., 19 Holly st., Cranford (20)
Carter, Joseph F. S., 142 Atkins av., Asbury Pk.(13)
Cartisser, Joseph J., High st., Stanhope (19)

Cartnick, Louis C., 228 Hillcrest av., Wood-Ridge(2)
Carusi, Leonardo G., 337 Park av., Paterson (16)
Caruso, Anthony T., 304 Union av., Belleville (7)
Caruso, Paul F., 194 Montross av., Rutherford (2)
Casagrande, Stephen R., 56 River rd., Rumson (13)
Casciano, Adolph D., 189 Harrison av., Jersey C. (9)
Case, Clarence E., Jr., 15 W. Bridge st., Som'rv'e(18)
Casey, Robert B., 51 W. Milton av., Rahway (20)
Casilli, Arturo R., 618 Newark av., Elizabeth (20)
Casselman, Arthur J., 301 N. Second st., Camden (4)
Casser, Leonard, Army (2)
Castaldo, Neil, 103 Lincoln av., E., Cranford (20)
Catania, Joseph P., 140 Passaic st., Garfield (2)
Catanzaro, Francesco, 151 Jefferson st., Passaic(16)
Catanzaro, Vincent J., 316 Midland av., Garfield (2)
Cates, Haynes B., Shell rd., Carney's Point (17)
Catlaw, J. Kenneth, 321 Stegman Pkwy.,Jer.City(9)
Catlett, George F., 92 Main st., Newton (19)
Cavallaro, William, 382 Springfield av., Summit (20)
Cavalli, Ralph D., 702 Broadway, Camden (4)
Cebula, Jerome M., 7332 Boulevard, No. Bergen (9)
Cella, Charles F., 359 Hamilton av., Trenton (11)
Cerchio, Michael, 132 Wayne st., Jersey City (9)
Cerone, Daniel M., 365 Roseville av., Newark (7)
Cerreto, Frank R., 395 Roseville av., Newark (7)
Cestone, Canio, 1425 Pompton av., Little Falls (7)
Cetta, Peter, 109 Mountainside av., Nutley (9)
Chaiken, Louis H., 138 Westfield av., Elizabeth (20)
Chamberlain, Richard R., 30 Lenox pl., Maplew'd(7)
Chandler, Swithin, Jr., 102 Beech av., Trenton (11)
Chapman, Ellis J., 203 Danforth av., Jersey City(9)
Chapman, Walter I., 700 Avenue C, Bayonne (9)
Chapnick, Maurice M., 715 Broadway, Paterson (16)
Charleroy, Durant K., 935 Greenw'd av., Trenton(11)
Charlton, C. Coulter, Park & Absec'n avs.,Absecon(1)
Charney, William, 555 Broadway, Paterson (16)
Chase, Kalman, Jr., 80 Sheridan av., Hohokus (2)
Chase, William M., 115 Pennsylvania av.,Newark(7)
Chayes, Sydney, 980 Avenue C, Bayonne (9)
Cherashore, Harry N., 363 Centre st., Nutley (7)
Chernus, Jack, 61 Lincoln Park, Newark (7)
Cherry, Homer H., Val. View Sana., Paterson (16)
Cheskin, Louis J., 31 Lincoln Park, Newark (7)
Chesler, Maurice, 124 W. Broadway, Salem (17)
Chesley, Norman K., 211 E. Main st.,Maple Shade(8)
Chesner, William A., 1111 Hamilton av., Trenton(11)
Chesnick, Reuben B., Grad.Hosp.,U. of P.,Phila.,P.(4)
Chester, Saul W., 634 Broadway, Paterson (16)
Chianese, C. Chester, 464 Hamilton av., Trenton(11)
Chiaramida, Joseph, Essex Co. Sana., Verona (7)
Chieffo, Henry, 1722 Boulevard, Union City (9)
Chiger, Alexander S., 621 High st., Newark (7)
Childers, Robert J., 600 Park av., Plainfield (20)
Chilton, Forrest S., Pompton Tnpk.,Pompton P.(16)
Chimacoff, Hyman, 159 Elizabeth av., Newark (7)
Chizik, John J., 162 W. 31st st., Bayonne (9)
Chmelewski, Anthony, 203 E. Main st., Millville (6)
Chmelnik, Abraham G., City Hospital, Newark (7)
Chodosh, Maurice A., 606 Roosevelt av., Carteret(20)
Chodosh, Paul L., Army (20)
Chrisman, Irving, 423 Broadway, Paterson (16)
Christensen, Alexander H., Main st., Lebanon (10)
Christian, Elizabeth I., Station A, Trenton (11)
Christian, Henry A., 263 Woodlawn av., Jer. City (9)
Christoph, Francis T., 959 Salem rd., Union (7)
Chudzik, Edward W., 269 Outwater lane, Garf'd (16)
Church, Charles F., 192 College av., N. Brunsw'k(12)
Churg, Jacob, Barnert Mem. Hosp., Paterson (16)
Ciampa, Ralph P. E., 119 Morris av., L. Branch (13)
Ciccone, Anthony C., 389 Grand st., Paterson (16)
Ciccone, Edwin L., 261 Roseville av., Newark (7)
Ciccone, Roy, 57 Passaic av., Passaic (16)
Cichon, Elmer J., 679 Van Houten av., Clifton (16)
Cicione, Edward, 621 Highland av., Palmyra (3)
Cieri, Daniel S., 1515 Central av., Jersey City (9)
Cincotti, Victor, 11 Hill st., Newark (7)
Clarie, D'Arcy C., 155 Paulin blvd., Leonia (2)
Clark, Alice L., 206 W. State st., Trenton (11)
Clark, Ernest W., 414 Cooper st., Camden (4)
Clark, Frank G., White House Station (10)
Clark, John C., 601 Grand av., Asbury Park (13)
Clark, Margaret A., Glen rd., Woodcliff Lake (2)
Clark, Morris B., W. Pine & Atl. avs., Audubon (4)
Clark, Orlo H., 149 Prospect st., Passaic (16)
Clark, S. Worth, 152 S. No. Carolina av., Atl. C. (1)
Clarke, Francis M., 116 New st., N. Brunsw'k (12)
Clarken, Joseph A., 27 Ingraham pl., Newark (7)
Cleary, Joseph P., Minotola (1)
Clement, Baxter L., 50 W. Front st., Red Bank (7)
Clement, John B., Lovers Lane, Princeton (11)
Clinton, James, N. J. State Hosp., Marlboro (12)
Clinton, Joseph A., 339 Park av., Newark (7)
Close, Byron H., Hamburg Tnpk., Bloomingdale (16)
Cloud, Albert W., 139 Hugenot av., Englewood (2)
Clunan, Ambrose P., 851 Hamilton av., Trenton (11)
Cockburn, Wilfred P., Army (7)
Coe, Edward M., 217 Holly st., Cranford (20)
Coes, Harold V., Jr., R.F.D. 2, Sussex (19)
Coffin, Henry F., 116 N. Ninth st., Newark (7)
Coggeshall, Bayard, 20 Franklin st., Morristown(14)
Cohan, Charles C., 217 W. Hanover st., Trenton (11)
Cohen, Harry X., 1267 Stuyvesant av., Union (20)
Cohen, Herman, 489 Jersey av., Jersey City (9)
Cohen, Herman, 1301 Hamilton av., Trenton (11)
Cohen, Herman N., 108 13th st., Hoboken (9)
Cohen, I. Elvin, 561 Elizabeth av., Newark (7)
Cohen, Julian, 592 E. 29th st., Paterson (16)
Cohen, Leon, 2424 Baird Blvd., Camden (4)
Cohen, Louis, 257 Paulison av., Passaic (16)
Cohen, M. Marvin, 582 E. 25th st., Paterson (16)
Cohen, Maurice, 106 Valley rd., Montclair (7)
Cohen, Maurice B., 224 E. Wildwood av., Wildw'd(5)
Cohen, Oscar H., 115 Church st., Boonton (14)
Cohen, Paul, 500 State st., Camden (4)
Cohen, Samuel, 100 Clifton pl., Jersey City (9)
Cohen, Samuel A., 980 Summit av., Jersey City (9)
Cohen, Sidney L., 29 Girard pl., Newark (7)
Cohen, Sidney P., 509 Franklin av., Nutley (7)
Cohen, William, 1007 Greenwood av., Trenton (11)
Cohn, George M., 867 S. 11th st., Newark (7)
Cohn, Hermann, 393 Clinton av., Newark (7)
Cohn, Royal M., 251 S. Harrison st., East Orange (7)
Colavita, James J., 433 Princeton av., Trenton (11)
Cole, Harold S., 19 Donaldson av., Rutherford (2)
Cole, L. Frank, 388 Terhune av., Passaic (16)
Cole, Nathaniel B., 104 Market st., Perth Amboy(12)
Cole, Walter H., Jr., 1060 E. Jersey st., Elizabeth(20)
Coleman, Austin H., 93 Center st., Clinton (10)
Coleman, Joseph G., Hamburg (19)
Coleman, Russell M., 76 N. Clinton st., E. Orange (7)
Coleman, William H., 641 Parkway av., Trenton (11)
Colfax, Richard S., Navy (16)
Colley, Arthur T., 1044 Park av., Plainfield (20)
Collier, James F., 523 Cooper st., Camden (4)
Collier, Martin H., 523 Cooper st., Camden (4)
Collins, John F., 1208 Columbia av., Pleasantv'e(1)
Collins, Laurence M., N. J. State Hosp., Grey.P.(14)
Collins, Louis K., 54 State st., Glassboro (8)
Collis, Abraham S., 156 Atlantic av., L. Branch (13)
Colmer, Meyer J., 31 Lincoln Park, Newark (7)
Colonna, Joseph A., 5016 Hudson av.,W.NewYork(9)
Colsh, LeRoy L., 612 Ridgewood rd., Maplewood(7)
Colton, Ethan T., Jr., 31 Park st., Montclair (7)
Comando, Edward N., 88 Clifton pl., Jersey City (7)
Comando, Harry N., 695 Clinton av., Newark (7)
Comeau, George W., 415 Speedw'l av.,Mor's Pl'ns(14)
Commini, Frank F., 439 Bellevue av., Trenton (11)
Comunale, Anthony R., 1709 Irving st.,Rahway(20)
Conlen, Richard, 523 Haddon av., Camden (4)
Conlon, Philip J., 25 James st., Newark (7)
Connell, Emmet J., 2227 Boulevard, Jersey City (9)
Connell, James, 337 Monmouth st., Gloucester (4)
Conner, Herbert A., 606 N. Grove st., E. Orange (7)
Connolly, John J., 180 Ballantine Pkwy., Newark (7)

Connolly, Richard N., 117 Fifth st., Newark (7)
Connor, Clarence A., 1586 Center av., Fort Lee (2)
Conover, Elizabeth, 129 Summit av., Summit (20)
Conserva, Peter V., 196 Randolph av., Clifton (16)
Constad, Arnold N., 944 Stuyvesant av., Union (20)
Conty, Anthony J., 318 48th st., Union City (9)
Conway, James V., 428 Elmora av., Elizabeth (20)
Cook, Caroline S., 64 Grove st., Somerville (18)
Cook, Dora G., 317 Cornelia st., Boonton (14)
Cook, Homer E., 64 Grove st., Somerville (18)
Cook, Hugh F., 21 Roseville av., Newark (7)
Cooley, Justice H., II, 150 W. High st.,Somerville(18)
Cooper, David P., 125 Clinton pl., Newark (7)
Cooper, Irving J., 419 George st., N. Brunsw'k (12)
Cooper, Jehu P., 96 Main st., Matawan (13)
Cooper, Jules, 723 Washington st., Woodbine (5)
Cooper, Max M.,Spring Gar. & Church sts.,Milf'd(10)
Cooper, Robert A., 7137 E. Park av.,Penns'k'nTsp.(4)
Cooperman, Eli L., 527 New Brunsw'k av., Fords(12)
Cooperman, William, 647 Market st., Newark (7)
Copleman, Benjamin, 280 Hobart st., P. Amboy (12)
Copleman, Hyman B., 111 Liv'gst'n av.,N.Br'sw'k(12)
Coplin, George J., 528 E. Jersey st., Elizabeth (20)
Coppoletta, Joseph M., Navy (2)
Cordasco, Peter, 517 Roseville av., Newark (7)
Coriell, Lewis L., Municipal Hospital, Camden (4)
Corio, George A., 307 S. Clinton av., Trenton (11)
Corless, Joseph F., 7 77th st., North Bergen (9)
Corn, David, 541 Queen Anne rd., Teaneck (2)
Cornish, Charles H., 673 Prospect st., Maplewood(7)
Cornwell, Robert A., 717 Wesley av., Ocean City (5)
Corrigan, Patrick H., 1720 S. Broad st., Trenton (11)
Corson, Filbert R., 101 S. Indiana av., Atl. City (1)
Corson, Kenneth E., 5 S. Myrtle st., Vineland (6)
Cortelyou, Thomas P., 83 E.Prospect st.,Hopew'll(11)
Cortese, Alvin E., 26 Ward st., Paterson (16)
Cortese, Joseph T., 517 Roseville av., Newark (7)
Corwin, Emanuel M., 5 Richards av., Dover (14)
Cosgrove, Robert A., 186 Belmont av., Jersey City(9)
Cosgrove, Samuel A., 88 Clifton pl., Jersey City (9)
Costa, George J., 567 Jersey av., Jersey City (9)
Costa, Philip L., 88 East Front st., Red Bank (13)
Costabile, Vincent, 324 Second av., Lyndhurst (2)
Costanzo, Joseph J., White Horse av., Clementon(4)
Costello, William F., 55 W. Blackwell st., Dover(14)
Cosulich, Livio, 12 Harrison pl., Irvington (7)
Cottone, R. John, 806 W. State st., Trenton (11)
Cottrell, Judson G., 159 Market st., Perth Amboy(12)
Coughlan, Ella A., 10 Oakwood av., Orange (7)
Coughlin, Frank J., 100 Magnolia av., Arlington (7)
Coultas, Aldo B., 1 Madison av., Madison (14)
Covino, Louis L., 44 Oakland ter., Newark (7)
Cowen, Mortimer I., 1407 Oak Tree rd., Iselin (12)
Cowlbeck, H. Donald, 224 W. State st., Trenton (11)
Cox, Harold C., 208 Stockton st., Hightstown (11)
Cox, J. Robert, 37 W. Main st., Penns Grove (17)
Cox, John C., 55 Woodland rd., Maplewood (7)
Cox, Joseph A., 16 Elmwood pl., Elizabeth (20)
Cox, William T. R., 345 S. Broad st., Elizabeth (20)
Cox, William W., 79 S. Fullerton av., Montclair (7)
Coxson, Harold P., Laurel rd., Stratford (4)
Cozzarelli, James J., 219 Belleville av., Belleville (7)
Crabtree, Loren H., 505 Jersey av., Elizabeth (20)
Cracco, Frederick A., 211 Palisade av.,Union City(9)
Crandall, John K., 200 Main st., Fort Lee (2)
Crandell, C. Archie, N.J. State Hosp.,Greyst'e P.(14)
Crane, Bernard, 306 Pacific av., Atlantic City (1)
Crane, Charles G., 78 Farley av., Newark (7)
Crane, Norman T., 1025 Park av., Plainfield (20)
Crane, Warren E., 974 S. Broad st., Trenton (11)
Crater, Kenneth E., 172A Davey st., Bloomfield (7)
Crawford, Georgina U., 65 Prospect st., E.Orange(7)
Crecca, Anthony D., 376 Roseville av., Newark (7)
Crecca, Joseph V., 115 S. Centre st., S. Orange (7)
Crecca, William D., 111 Park av., Newark (7)
Cremens, John F., 144 Carroll st., Paterson (16)
Crescente, Fred J., 836 Madison av., Paterson (16)
Cricco, Carl F., 909 Washington st., Hoboken (9)
Crisonino, Philip D., 26 Bentley av., Jersey City (9)
Crist, Walter A., 446 Magill av.,West Collingsw'd(4)
Cronin, Francis J., 730 South st., Elizabeth (20)
Cropsey, Charles D., 168 Chestnut st., Rutherford(2)
Crossfield, Henry C., 144 Harrison st., E. Orange(7)
Crounse, David R., 84 Broadway, Passaic (16)
Crowe, Aldrich C., 735 Atlantic av., Ocean City (5)
Crowley, Joseph W., 4005 Westfield av., Camden (4)
Crunden, Allan B., Jr., 21 Plymouth st.,Montclair(7)
Cryder, Millard C., 109 Mechanic av.,CapeM.Ct.H.(5)
Cucinella, Anthony B., 361 Lafayette st., Newark(7)
Cummins, Ella F., 39 Elm st., Morristown (14)
Cunniff, Charles L., 58 Kensington av., Jer. City (9)
Cunningham, Charles, Jr., 716 Wood st., Vinel'd (6)
Cunningham, Joel B., 801 Cooper st., Camden (4)
Cuono, Joseph D., Essex Co. Sana., Verona (7)
Cupaiuoli, Richard A.,540 Ridgewood rd.,Maplew'd(7)
Curry, Marcus A., Box 445, Mountain Lakes (14)
Curtis, A. Maurice, 445 Van Houten st.,Paterson(16)
Cutler, Milton, 554 Bellevue av., Hammonton (1)
Cytowic, Edmund R., 2502 Not'gham W.,Trenton(11)
Cziraky, Anton, 516 34th st., Union City (9)

ASSOCIATE MEMBERS

Caltabiano, C. Gregory, 263 Wash'gt'n av.,Dum't(2)
Cano, Harold V., 391 Main st., Spotswood (12)
Carnecchia, Baldo M., 429 Piaget av., Clifton (16)
Carras, Peter D., 338 Park av., Paterson (16)
Castiglia, Peter, 114 Valley rd., Clifton (16)
Castronuovo, John J., 466 Park av., Paterson (16)
Charles, Seymour, 172 Lyons av., Newark (7)
Clark, John J., 517 Broadway, Long Branch (13)
Cohn, Perry, 234 Lexington av., Passaic (16)
Collins, Raymond, 38 Washington st., E. Orange (7)
Cook, Alfred S., Jr., Army (11)
Crabb, Gordon, 240 East Palisade av., Englewood(2)
Cutler, Paul, 1616 Pacific av., Atlantic City (1)

D

ACTIVE MEMBERS

D'Addario, Anthony R., 132 Broadway, Newark (7)
D'Agati, Vincent, 745 Queen Anne rd., Teaneck (2)
D'Agostin, Henry, 243 Fulton ter., Cliffside Pk. (2)
D'Agostini, Alfred J., 41 Columbia av., Newark (7)
D'Agostini, Robert J., 41 Columbia av., Newark (7)
Dailey, Edward S., 141 Connett pl., S. Orange (7)
Dailey, Jeremiah, Army (14)
Dalberg, Walter, 500 Cherry st., Elizabeth (20)
D'Alessandro, Arthur J., 15 Salem st., Newark (7)
D'Alessandro, Genesio L., 279 N.Fifth st..Newark(7)
Dallio, Salvatore V., 463 Passaic av., Lodi (2)
Dalton, S. Eugene, 101 S. Surrey av., Ventnor (1)
Daly, Edmund J., 921 Bergen av., Jersey City (9)
Daly, John F., 16 N. Brae Court, Tenafly (2)

D'Amato, Charles R., 324 Hoboken rd.,E.Ruth'rf'd(2)
D'Ambola, Philip R., 21 S. Sixth st., Harrison (7)
D'Amico, Thomas V., 70 Fairview av., Verona (7)
Dana, Edward, 163 Prospect av., Hackensack (2)
Dandois, George F., 109 W. Magnolia av., Wildw'd(5)
Dane, Charles, 163 Kilburn pl., South Orange (7)
Dane, John, 61 Scotland rd., South Orange (7)
D'Angelo, Joseph C., 334 Washington av.,Bellev'e(7)
Danielson, John J., 4703 Tonnele av., N. Bergen (9)
Dante, Pasquale, 393 Millburn av., Millburn (7)
Danzis, Louis, 863 S. 12th st., Newark (7)
Danzis, Maximillian, 31 Lincoln Park, Newark (7)
Darden, Walter T., 149 W. Kinney st., Newark (7)
Darlington, Charles G., 802 Belvidere av., Pl'nf'd(20)
Daron, Simeon, 31 Lincoln Park, Newark (7)
Davenport, Irwin P., 545 W. State st., Trenton (11)
Daversa, Benjamin, 209 Passaic av., Spring L. (13)
David, Leopold S., 326 Cooper st., Camden (4)
Davidson, E. Norwell, 102 East Elm st., Linden (20)
Davidson, Eric W., 290 Park st., Up. Montclair (7)
Davidson, Harold S., 117 S. Illinois av., Atl. City (1)
Davidson, Henry A., R. D. 2, Flemington (10)
Davies, George A., 53 Front st., Elmer (6)
Davies, George W., 35 Fairview av., Verona (7)
Davis, A. Hobson, Paterson Gen. Hosp., Pat'rs'n(16)
Davis, Albert B., 511 Cooper st., Camden (4)
Davis, E. Vernon, 306 E. Main st., Moorestown (3)
Davis, F. Cleveland, 129 Summit av., Summit (20)
Davis, Harold, 170 S. Wash'gton av., Bergenf'd (2)
Davis, Harold L., 178 W. State st., Trenton (11)
Davis, Jacob M., 1400 High st., Burlington (3)
Davis, John, 187 Broad st., Bloomfield (7)
Davis, Louis, 825 S. Tenth st., Newark (7)
Davis, Stanton H., 212 E. Seventh st., Plainfield (20)
Davis, Thomas C., 30 Old Short Hills rd., Millb'n(7)
Davis, William A., 270 Ridgewood av.,Glen Ridge(7)
Davis, William J., 144 Harrison st., East Orange (7)
Davison, C. Spencer, 7 Chestnut st., Salem (17)
Davison, Wilbur S., 1 S. Broadway, Pennsville (17)
Dawson, Harry, 618 E. 24th st., Paterson (16)
Day, Hayward F., 92 Duer st., North Plainfield (18)
Day, Kenneth L., 14 Elm st., Morristown (14)
Day, Samuel T., Main st., Port Norris (6)
Day, Willis B., 407 E. Seventh st., Plainfield (20)
Dean, Guy K., Jr.. Princeton rd., Plainsboro (11)
Dear, Abraham L., 23 Synott pl., Newark (7)
DeBell, Peter J., 65 Summer st., Passaic (16)
DeBiaso, Cornelius V., 9 W. Park pl., Rutherford(2)
deBlois, Joseph A.,Jr.,1008 Hamilton av.,Trent'n(11)
DeCecio, Thomas, 691 Palisade av., Cliffside Pk. (2)
DeCesare, Ferdinand J., 500 Walnut st.,RoselleP.(20)
Decker, Charles T., 275 Orchard st., Westfield (20)
Decker, Henry B., 527 Penn st., Camden (4)
Dederick, Gerald F., 15 Anderson st., Hackensack(2)
DeDominicis, Frank A., 116 17th av., Paterson (16)
Deehl, Seymour R., 1026 E. Jersey st., Elizabeth (20)
DeFelice, Mario T., 71 Mt. Airy rd., Bernardsville(14)
DeFilippis, Ralph L., 228 Tremont av., Orange (7)
DeFronzo, Morando, 180 Fairmount av., Newark (7)
DeFuccio, Charles P., 12 Duncan av., Jersey City(9)
DeFusco, G. Thomas, 330 Newark av., Jersey City(9)
DeGerome, James H., 10 Ridgewood av., G. Ridge (7)
DeGrace, Francis H., 311 Paulison av., Passaic (16)
DeHart, George K., 132 Sunset av., Verona (7)
deHellebranth, Roland T., 104 S.Fr'nkf't av.,V'tn'r(1)
Deibert, Irvin E., 538 Cooper st., Camden (4)
Deich, Samuel R., 170 Passaic av., Passaic (16)
Deichman, Charles H., 39 Elm st., Morristown (14)
Deignan, William L., 257 Dodd st., East Orange (7)
Dein, Harry, Army (1)
Deitmaring, Francis A., 7922 Boulevard,N.Berg'n(9)
Deitz, Joseph R., 915 W. State st., Trenton (11)
Delafrange, Kenneth M.,96 Wash'gt'n av.,Westw'd(2)
Delario, Anthony J., 316 Broadway, Paterson (16)
Delatush, George A., 180 Park st., Montclair (7)
DelBaglivo, Mario, 10 Centre av., Secaucus (9)
Delcau, Jules, 85 W. Main st., Freehold (13)
Delcau, Marie, 123 Main st., South River (12)
Del Deo, Nicholas V., 49 State st., Newark (7)
Del Duca, Vincent P., 514 Cooper st., Camden (4)
Del Guercio, Olindo, 342 Clifton av., Newark (7)
DeLia, Emilio, 25 Crane st., Newark (7)
D'Elia, William J., 2017 Fifth av., Spring Lake (13)
Della Fera, Lucien F., 206 First av., Newark (7)
Della Penna, Samuel J., 320 Ramapo av.,P'pt'nL.(16)
Della Ragione, Mario, 120 Second av., Newark (7)
Del Mauro, Alphonse, 460 Park av., Paterson (16)
DeLorenzo, Francis, 281 Bellevue av., Montclair (7)
DeLuca, Louis, 323 E. Ridgewood av., Ridgewood(2)
DeLuccia, Ralph L., 428 Park av., Paterson (16)
DeMarco, Silverino V., 2780 Boulevard, Jer. City (9)
Demaree, Richard H., 310 Norw'd av., L. Branch(13)
Demarest, Gerald B., 505 E. Broad st., Westfield(20)
DeMattia, Michael, 71 Ward st., Paterson (16)
DeMichele, Roland V., 516 Clifton av., Newark (7)
Dempsey, J. Harvey, 66 Washington av., Berlin (4)
Demy, Nicholas G., 912 Prospect av., Plainfield (20)
Denbo, Elic A., 596 Benson st., Camden (4)
Denelsbeck, J. Otis, 878 E. State st., Trenton (11)
Denes, Oscar, 402 Centre st., Nutley (7)
Dengler, Henry P., 260 Morris av., Springfield (20)
Dengrove, Edward, 314 Grassmere av.,Interl'k'n(13)
Denholm, John S., 629 E. Broad st., Westfield (20)
Denholtz, Emanuel, 16 Harrison pl., Irvington (7)
Denison, Ward C., 316 Broadway, Paterson (16)
Dennison, Alfred D.,Jr., 601 Ridgew'd rd.,Map'w'd(7)
DePasquale, Filarginio, 461 Jersey av., Jer. City (9)
DePhillips, Benedict R., 297 Mt. Prosp't av.,New'k(7)
dePons, Sarah C., 601 Grand av., Asbury Park (13)
DeRosa, Armand, 262 Totowa rd., Totowa (16)
DeRosa, Louis, 193 Danforth av., Jersey City (9)
DeRosa,Vincent A., 31 Oakwood av., L. Branch(13)
Dershewitz, Irving, 835 Montgomery st., Jer. City(9)
DeSantis, Orazio J., 131 N. Third st., Millville (6)
DeSanto, Anthony M., 385 Essex st., Hackensack(2)
DeSevo, Gerard E., 115 Fairview av., Jersey City (9)
De Simone, Louis E., 1110 Grand av., Asbury P.(13)
Desmet, Victor F., 324 Broadway, Paterson (16)
Detrano, Salvatore J., 903 Wash'gton st.,Hoboken(9)
DeTroia, Frederick C., 26 Stanley rd., S. Orange (7)
Deuell, William D., 190 Elm av., Hackensack (2)
Deutel, Oscar R., 265 Newark av., Bloomfield (7)
Deutsch, Nathan S., 223 E. Fifth st., Plainfield (20)
DeVincentis, Henry, 285 Henry st., Orange (7)
DeVincenzo, F. Richard, 629Wash'gt'n st.,Hob'k'n(9)
DeVita, Anthony J., Wilson av., P. Monmouth (13)
DeVivo, John A., 188 S. Sixth st., Newark (7)
Devlin, Arthur D., 533 Mt. Prospect av., Newark (7)
deVries, John K., 144 Harrison st., East Orange (7)
Dewis, Edwin G., 21 Westra st., Interlaken (7)
DeYoe, Leon E., 602 Broadway, Paterson (16)
Dezer, Charles N., Jr., 210 Main st., Hackensack (2)
Diamond, David I., Oceanport av., Oceanport (13)
Diamond, J. George, 1125 Park av., Plainfield (20)
Diamond, Paul, 372 Fairview av., Westwood (2)
Dickensheets, Jas. G., 4405 Westf'd av., Pen'k'n (4)
Dicker, Ralph L., 31 Lincoln Park, Newark (7)
Dickson, John D., 202 Larch av., Bogota (2)
Dickson, T. Bruce, 408 Maln st., Riverton (3)
Dlefendorf, Herbert W., 129 Summit av.,Summit(20)
Dieker, Howard E., 78 Main st., South River (12)
Diener, Samuel, 14 Clinton pl., Newark (7)
Dierwechter, Reuben, 12 N. Providence av.,Atl.C.(1)
DiFino, Felix J., 172 Edison pl., Newark (7)
DiGiacomo, Harry E., 195 Hunterdon st., New'k(7)
DlGiacomo, William H., 223 Fairm'nt av.,Newark(7)
DiIelsi, Anthony J., 1013 S. Fifth st., Camden (4)
DiLeo, Victor, 453 Park av., Orange (7)
Dilger, Frederick G., 210 Maln st., Hackensack (2)
DiMarino, Anthony J., 735 Delaware st.,Paulsboro(8)
Dimitrow, Helen, 236 Broad st., Red Bank (13)
D'Imperio, Francesco, 411 Cooper st., Camden (4)
Dimun, John T., 1000 S. Broad st., Trenton (11)
Dinge, Ferdinand C., 67 S. Munn av., E. Orange (7)

Dingman, Norman M., 330 Broadway, Paterson (16)
DiNicolantonio, Vincent J., 3121 Atl'tic av., Atl.C.(1)
Dinneen, James B., Army (20)
DiNorcia, Joseph, 498 W. Market st., Newark (7)
Dintenfass, Arthur, 1616 Pacific av., Atlantic C. (1)
Dirdack, Morris, 12 James st., Morristown (14)
Dirr, John P., 142 Washington av., Rutherford (16)
Diskan, Samuel M., 1616 Pacific av., Atlantic C. (1)
Dmytriw, Stephen, 226 N. Park st., East Orange (7)
Dochtermann, Warren P., 380 Main st.,Chatham(14)
Dodd, William E.,Ocean st.& Bay av.,B'ch Haven(15)
Dodge, James T., 1819 S. Broad st., Trenton (11)
Doebele, William A., 1425 Wesley av., Ocean City(5)
Doggett, E. Hugh, 805 Park av., Plainfield (20)
Doggett, Frank B., Jr., 124 N. Ohio av.,Atlantic C.(1)
Doherty, William, 42 Gesner st., Linden (20)
Doktor, David, 648 14th av., Paterson (16)
Dolan, Gerald J., 247 Washington av., Hillsdale (2)
Dolin, Joseph, 357 Woodbridge av., N. Brunsw'k(12)
Dolsky, Irving, 901 N. Wood av., Linden (20)
Donauer, Robert M., 34 Bedford rd., Summit (20)
Donnelly, John H., 634 S. 20th st., Newark (7)
Donnelly, Joseph E., 445 Market st., Paterson (16)
Donnelly, Joseph P., 58 Kensington av., Jer City (9)
Donohoe, Lucius F., 140 W. Eighth st., Bayonne (9)
Doody, William M., 19 Bentley av., Jersey City (9)
Dooley, James H., 295 Montgomery st.,Bloomfield(7)
Doran, Ralph J., 200 11th st., Hoboken (9)
Doranz, Harold K., 502 W. State st., Trenton (11)
Dorkin, Jerome R., 2908 Federal st., Camden (4)
Douglass, Frederick W., 160 Lincoln st., Montcl'r(7)
Douglass, William C., 15 Olcott av., Bernardsv'e(18)
Downing, Perley E., N. J. State Hosp., Trenton (12)
Downs, Louis S., 164 Pershing av., Carteret (12)
Doyle, John J., 91 Duncan av., Jersey City (9)
Draesel, Stradford T.,246 Lawr'ce av.,Hasbr'kHts.(2)
Drake, Daniel E., Union Valley rd., Newf'dland(16)
Drake, Leo B., 47 Main st., Franklin (19)
Drake, Paul F., 85 Summit av., Phillipsburg (21)
Drake, Willard M., Jr., 406 Cooper st., Camden (4)
Dranow, Paul, 233 Franklin av., Nutley (7)
Drapkin-Rados, Berta, 31 Lincoln Park, Newark (7)
Dreizin, David, 1910 Maker dr., Union (7)
Dresel, Irmgard, Mine Brook rd., Far Hills (18)
Dreskin, Jacob L., 34 Lyons av., Newark (7)
Dresner, Evelyn E., 205 Park st., Ridgefield P. (2)
Drewniany-Killeen, B., 461 Kingsland av., L'dh'st(7)
Drews, Francis F., Jr., 77 Dwight pl., Englewood (2)
Driggs, Marshall F., 242 Engle st., Englewood (2)
Driscoll, Charles D., 475Wt.HorsePk.,W.Col'gsw'd(4)
Driscoll, Raymond S., 117 W. Fifth st., Bayonne (9)
Drossner, Jacob L., 1300 Park Blvd., Camden (4)
duBusc, L. C. Victor, 399 Westfield av.,Elizabeth(20)
Dudley, Henry G., 222 Sylvania pl., Westfield (20)
Duffy, Edward P., Jr., 379 Wash'gton av.,Belley'e(7)
Duffy, William J., 22 Nairn pl., Newark (7)
Dukes, Howard R., 220 Kearny av., Kearny (9)
Dul, Emil J., 154 Plauderville av., Garfield (2)
Dulany, Theodore L., 170 W. Market st., Newark (7)
Dulin, Everett V., 144 Harrison st., East Orange (7)
Duncan, Owsley B., 414 Ellison st., Paterson (16)
Dunham, Malcolm M., 88 Grove av., Woodbridge(12)
Dunn, H. Irving, 610 Salem av., Elizabeth (20)
Dunn, John S., 75 Market st., Salem (17)
Dunn, Theodore B., 35 Park pl., Bloomfield (7)
Dupuy, Jean G., 850 Jersey av., Elizabeth (20)
Durchlag, E. Nelson, 60 Myrtle av., Irvington (7)
Durham, Frederick W.,20 KingsHwy.,W.,Had'nf'd(4)
Durham, Robert B., 110 S. N. Carolina av., Atl. C. (1)
Durham, Royal E., 100 S. New Haven av.,Ventnor(1)
Durrah, Fred F., 310 Plainfield av., Plainfield (20)
Duschock, Edward F., 473 Amboy av., P. Amboy(12)
Duvall, Albert I., 848 Broad st., Shrewsbury (13)
Dwoyer, Leon C., 850 N. Wood av., Linden (20)
Dwulet, Leon, 910 Arnold av., Point Pleasant (15)
Dwyer, Gregory, Community Med. Gr., Boonton (14)
Dwyer, Henry E., 261 Madison st., Passaic (16)
Dwyer, William A., 99 Park av., Paterson (16)
Dyer, Edward H., 102 S. Victoria av., Ventnor (1)

ASSOCIATE MEMBERS

Davey, John, Walnut st., Oakland (2)
DeLuca, Joseph M., 129 Mill rd., Maple Shade (16)
Denholtz, Myron S., 454 Tillou rd., South Orange(13)
Denson, Lawrence J., 345 Hamilton pl.,Hackens'k(2)
DeVito, Alfred T., 507 Fourth av., Asbury Park (13)
De Vries, Peter J., 180 Carroll st., Paterson (16)

E

ACTIVE MEMBERS

Eames, William N., 1871 Pennington rd.,Trenton(11)
Earp, Ruth, 15 Olcott av., Bernardsville (14)
Eason, Samuel W., 48 De Forest av., Summit (20)
Ebner, Paul G., 408 Overhill rd., Haddonfield (4)
Eccleston, Herbert H., 124 Elm av., Hackensack (2)
Echikson, Joseph I., 31 Lincoln Park, Newark (7)
Eck, Daniel B., 144 Harrison st., East Orange (7)
Ecker, Joseph L., 75 Center st., Clinton (10)
Eckert, Walter L., 2600 Canada Blvd.,Glend'e,Cal.(1)
Eckhardt, Janet L., 120 Prospect st., S. Orange (7)
Eckhardt, Ralph A., 50 Green Vil. rd., Madison (14)
Eckstein, David, 407 Greenwood av., Trenton (11)
Eddy, Lester R., 40 Bank st., Sussex (19)
Edelberg, Sidney S., 403 E. High st., Bd. Brook (18)
Edelen, James J., 100 S. Munn av., East Orange (7)
Edelson, Edmond, 127 Lehigh av., Newark (7)
Edelson, Samuel, 1611 Grand av., Asbury Park (13)
Edelstein, Isidore, 938 Hudson st., Hoboken (9)
Edgar, Malcolm S., 129 Summit av., Summit (20)
Edgerly, Sherburn E., 220 Engle st., Englewood (2)
Edlkraut, Edward C., 320 Lexington av., Clifton(16)
Edson, James, 336 Belmont av., Haledon (16)
Edwards, J. Bennett, 144 Woodridge pl., Leonia (2)
Edwards, Lena F., 360 Pacific av., Jersey City (9)
Edwards, Sydney K., 18 West dr., Livingston (7)
Edwards, Walter R., 2624 Quaker Br.rd.,M'rc'rv'e(11)
Ehrenfeld, Edward, 185 Lexington av., Passaic (16)
Ehrenfeld, Irving, 185 Lexington av., Passaic (16)
Ehrlich, Edward, 838 S. 13th st., Newark (7)
Ehrlich, Max, 721 N. Broad st., Elizabeth (20)
Ehrlich, William E., 31 Lincoln Park, Newark (7)
Ehrlich-Morrow, Laura E.,197 Passaic av.,Pass'c(16)
Eichler, Bernard B., 221 Midland av., Montclair (7)
Ein, William B., 31 Lincoln Park, Newark (7)
Einhorn, Harvey, 241 16th av., Newark (7)
Einhorn, Samuel E., 241 16th av., Newark (7)
Eisemann, Jerome S., 38 Main st., Butler (16)
Eisenberg, David S., 31 Lincoln Park, Newark (7)
Eisenhower, J. S. D., 2704 Pacific av., Wildwood (5)
Eisenstein, Bernard, 276 Engle st., Englewood (2)

Eisenstodt, Lester W., 31 Lincoln Park, Newark (7)
Eken, Elizabeth B., Midwood ter., Madison (14)
Elias, Elmer J., 474 Greenwood av., Trenton (11)
Ellenbogen, Leonard S., 1616 Pacific av., Atl. City(1)
Ellenson, Solomon S., 507 Fourth av., Asbury P. (13)
Elliott, Frazier J., 11 N. Second st., Hammonton(1)
Ellis, Alexander, 519 Broadway, Camden (4)
Ellis, Arthur J., 140 Roseville av., Newark (7)
Ellis, Ralph W., 64 Fairview av., Morrisville,Pa.(11)
Ellis, William C., Navy (13)
Ellmers, Basil J., 304 Milford av., New Milford (2)
Elsasser, Theodore H., 7206 Park av., N. Bergen (9)
Elwell, Alfred M., Jr., 149 E. Main st., Moorest'n(3)
Elwell, Robert W., 215 Center av., Delanco (3)
Elwood, Benjamin J., 91 W. 38th st., Bayonne (9)
Emmer, S. Wolfe, 31 Lincoln Park, Newark (7)
Emory, George B., Jr., 1 Franklin pl.,Morristown(14)
Engelhart, Ferdinand K., 28 Oak lane, Trenton (11)
Englander, Charles, 41 Hillside av., Newark (7)
English, Harrison F.,III, 160 W.State st.,Trent'n(11)
English, John T., 110 Yale av., Irvington (7)
Epstein, Harry B., Hotel Suburban, East Orange (7)
Epstein, Martin, 196 W. State st., Trenton (11)
Epstein, William M., 322 E. Westfield av.,Ros'leP.(7)
Erber, Leonard B., 1902 Pacific av., Atlantic City (1)
Erdman, George L., 50 Cedar st., Maplewood (7)
Erler, Robert E., 360 Prospect st., S. Orange (7)
Ernest, Richard B., 240 W. State st., Trenton (11)
Ervin, Millard B., 36 Canterbury lane, Westfield (7)
Esposito, Amedeo C., N.J. State Hosp.,Gr'yst'eP.(14)
Esposito, Anthony L., 246 Lexington av., Passaic(16)
Essertier, Edward P., 275 State st., Hackensack (2)
Essertier, Harland C., 263 Franklin av., Ridgew'd(2)
Etheridge, Charles H., 433 Prospect st., E.Orange(7)
Ettinger, Horace J., 200 N. East av., Vineland (6)
Ettinger, Samuel, 501 32nd st., Union City (9)
Eulner, Elmer H., 216 Henry st., South Amboy (12)
Evans, Charles H., 144 Harrison st., E. Orange (7)
Evans, David P., 144 Harrison st., East Orange (7)
Evans, Edgar E., 12 Ziegler Tract, Penns Grove(17)
Evans, Edgar J., 25 Second av., Denville (14)
Evans, H. Walter, Jr., 45 Monmouth rd.,Oakh'st(13)
Evans, J. Lawrence, 7117 Park av., Woodcliff (9)
Evans, J. Lawrence,Jr.,254 Christie Hts.st.,Leonia(2)
Evans, John R., Jr., 496 Prospect st., Maplewood(7)
Ewens, Arthur E., 3600 Pacific av., Atlantic City(1)
Ewing, Harvey M., 31 Trinity pl., Montclair (7)
Ewing, Leslie H., 10 Broad st., Berlin (4)
Eynon, Harold K., 538 Cooper st., Camden (4)
Eynon, James R., 419 Cooper st., Camden (4)

ASSOCIATE MEMBERS

Eddy, Harrison P., III, 128 Engle st., Englewood (2)
Effron, Samuel A., 425 Park av., Paterson (16)
Erganian, Jane A., 122 Rodney st., Glen Rock (2)
Estrin, Seymour S., 900 Main st., Bradley Beach(13)

F

ACTIVE MEMBERS

Faber, Edward, 154 Bergen av., Jersey City (9)
Fabian, Paul L., 520 Princeton av., Trenton (11)
Fabriele, John B., 977 Avenue C, Bayonne (9)
Facciolo, Frank, 562 Boulevard, Bayonne (9)
Fadden, Francis J., Jr., 275 Engle st., Englewood (2)
Fader, Ferdinand, 350 Springdale av., E. Orange (7)
Fager, Rudolph O., 53 Park pl., Bloomfield (7)
Fahrenbruch, Freder'k D.,101 Garden st.,Mt.Holly(3)
Failing, Brayton E., 31 Lincoln Park, Newark (7)
Failmezger, Theodore R., 125 Green av., Madison(14)
Fain, Irving, 155 Chancellor av., Newark (7)
Faison, John B., 45 Glenwood av., Jersey City (9)
Falcone, Albert M., Army (20)
Falcone, Nicholas A., 68 Watch'g av.,N. Plainf'd(18)
Falconer-Slater, K., 37 Wald'n st., Hillsd'e,Mich.(20)
Fanburg, Sol J., 31 Lincoln Park, Newark (7)
Fanelli, Antonio, 494 Compton av., Perth Amboy(12)
Faraci, Charles, 23 Diamond Spring rd.,Denv'le(14)
Farb, Harry H., 21 Clinton pl., Newark (7)
Farber, Herbert R., 675 Broadway, Paterson (16)
Farkas, Gustav, 255 Harrison st., Passaic (16)
Farmer, Vincent, 430 Union st., Hackensack (2)
Farmer, Walter D., 28 S. Main st., Allentown (11)
Farr, Walter J., 955 Queen Anne rd., Teaneck (2)
Farrell, Edgar A. H., 26 Kings Hwy.,W.,Had'nf'd(4)
Fasano, Giovanni, 194 S. Seventh st., Newark (7)
Fath, Marcus A., 108 E. Glenwood av., Wildw'd (5)
Faulkingham, Ralph J., 61 Liv'gst'n av.,N.Br'sw'k(12)
Fauquier, Leonard B., 172 Jewett av., Jer. City (9)
Faux, Frederick J., 32 N. Columbia st., Woodb'y(8)
Fava, Philip V., 646 Sanford av., Newark (7)
Fazio, Vincent J., 227 Augusta st., S. Amboy (12)
Featherston, Daniel F., 601 Grand av., Asbury P.(13)
Fechner, Julius, 362 Clinton av., Newark (7)
Federer, John J., 69 Columbia ter., Weehawken (9)
Feeney, Edward, 156 Pompton Tpk., Pequan'k (16)
Feher, Ladislas A.M., 177 Somerset st.,N.Br'sw'k(12)
Fein, Bernard, 585 Elizabeth av., Newark (7)
Feinberg, Harry, 964 Avenue C, Bayonne (9)
Feinberg, Harry D., 384 Second av., L. Branch (13)
Feinman, Samuel E., 917 Summit av., Jersey City(9)
Feinsod, Samuel N., 1305 Clinton av., Irvington (7)
Feinstein, Louis, 410 Pacific av., Atlantic City (1)
Feld, Leo, 155 Lexington av., Passaic (16)
Felder, Samuel, 221 Main st., Flemington (10)
Feldman, Frank H., 115 Lyons av., Newark (7)
Feldman, Joel, 64 West Front st., Red Bank (13)
Feldman, Morris, 51 Bentley av., Jersey City (9)
Feleppa, Edward E., 618 Springfield av., Summit(20)
Feliciano, Vincent, 286 Lafayette av.,Hawthorne(16)
Felitti, Vincent J., 435 79th st., N. Bergen (9)
Feller, William, 283 Bergen av., Jersey City (9)
Feman, J. George, 141 Main st., Keansburg (13)
Fendrick, Edward, 17 Watson av., East Orange (7)
Fenster, Morton N., 202 Lexington av., Passaic (16)
Fenton, Tennant E., 320 Ludlow av., Spring L. (13)
Fenwick, John R., 196 Lakeview av., Clifton (16)
Ferenchak, Ralph, 219 Martine av.,N.,Fanwood (20)
Fermaglich, Harry B., 881 Garrison av., Teaneck(2)
Fern, Samuel S., 122 Elizabeth av., Newark (7)
Fernicola, Anthony R., 565 Mt. Prosp't av.,New'k(7)
Ferrante, Joseph, 803 Prospect av., Ridgefield (2)
Ferrari, Andrew F., 196 Main st., E. Rutherford (2)
Ferrari, Salvatore, 372 21st av., Paterson (16)
Ferrary, Paul B., 80 Park av., Paterson (16)
Ferriss, Ruth B., 8 Wetmore av., Morristown (14)
Fessler, A. James, 1544 S. Broad st., Trenton (11)
Fessler, William, 31 Knox av., Cliffside (2)
Fessman, John W., 114 Clements Br. rd.,Run'm'de(4)
Feuer, Joseph A., 59 Seeley av., Arlington (7)
Fialk, Harry, 4522 Boulevard, Union City (9)
Ficke, Sylvia A., 906 Summit av., Jersey City (9)

Ficker, Robert F., Ogdensburg (19)
Fidler, Jay W., Jr., 1441 Hazelwood ter., Plainf'd (20)
Fidler, William L., III, Navy (4)
Fiedler, Michael J., 2368 S. W. 4th st.,Miami,Fla.(20)
Field, Frank L., Far Hills (18)
Fielding, William M., 15 Waldwick av., Waldw'k(16)
Fiering, Abraham M., Pompton Tpk.,Mount'n V.(16)
Fietti, Vincent G., 112 Ridge rd., Lyndhurst (2)
Fifer, William T., 746 Avenue C, Bayonne (9)
Figliolino, Francis, 272 W. Milton av., Rahway (20)
Figurelli, Francis A., 88 Highland av.,Jersey City(9)
Filkins, Cedric E., 412 White Horse Pk., Audubon(4)
Filsinger, Carl W., 109 W.Maple av.,Merchantv'le(4)
Finby, Nathaniel, 46 Main st., Netcong (14)
Fine, Hyman P., 151 Market st., Perth Amboy (12)
Fine, Irvin J., 280 Hobart st., Perth Amboy (12)
Fineberg, Jacob C., 50 Glenwood av., Jersey City (9)
Finegan, Paul J., 200 W. State st., Trenton (11)
Finger, Frederick A., 943 Avenue C, Bayonne (9)
Fink, A. Elston, 489 High st., Newark (7)
Fink, Irving E., 71 Lincoln Park, Newark (7)
Fink, Stanley J., 221 Chestnut st., Roselle (20)
Finke, Charles H., 317 York st., Jersey City (9)
Finke, Charles H., Jr., 317 York st., Jersey City (9)
Finke, George W., 237 State st., Hackensack (2)
Finke, John H. D., 19 Hudson st., Hackensack (2)
Finkel, Joshua, 853 S. 11th st., Newark (7)
Finkelstein, Aaron, 762 S. Tenth st., Newark (7)
Finkelstein, Abe S., 670 Clinton av., Newark (7)
Finkelstein, Max, 115 Kensington av., Jersey City(9)
Finkle, Lester J., 495 W. State st., Trenton (11)
Finkler, Rita S., 35 Leslie st., Newark (7)
Finn, Henry R. W., 84 Lembeck av., Jersey City (9)
Finnerty, Urban R., 71 Park st., Montclair (7)
Fiorello, Joseph R., 689 Princeton av., Trenton (11)
Fioretti, Ralph J., 365 Rochelle av., Rochelle Pk. (2)
Firtel, Saul I., 1060 Broad st., Newark (7)
Fischbein, Martin M., 976 Sanford av., Irvington(7)
Fischer, David D., 35 Goldsmith av., Newark (7)
Fischer, Leo E., 70 Sherman pl., Jersey City (9)
Fischer, Louise, 31 Lincoln Park, Newark (7)
Fischman, Harold H., 326 Avon av., Newark (7)
Fishbein, Elliot, 70 Carroll st., Paterson (16)
Fisher, James A., 601 Grand av., Asbury Park (13)
Fisher, James A., Jr., 601 Grand av., Asbury Pk.(13)
Fisher, Samuel, 808 Madison av., Paterson (16)
Fishkoff, Alexander H., 132 Market st., P.Amboy(12)
Fissell, George M., 140 Roseville av., Newark (7)
Fister, Harris G., Army (3)
Fitch, Thomas S. P., 916 Park av., Plainfield (20)
Fitzgerald, Robert, 32 Johnson av., Newark (7)
Fitzhugh, William F., 190 Euclid av., Ridgef'd P.(2)
Fitzpatrick, Leo J., 541 Churchill rd.,W.Englew'd(2)
Flanagan, James F., 195 Elwood av., Newark (7)
Flanagan, John J., 173 Roseville av., Newark (7)
Flax, Charles H., 71 Baldwin av., Newark (7)
Flax, Jacob L., 31 Lincoln Park, Newark (7)
Fleming, Charles L., 42 W.Main st.,Penns Grove(17)
Fleming, Joseph A., 247 Claremont av., Montclair(7)
Flichtenfeld, Morris, 283 Fourth st., Jersey City (9)
Flicker, David J., 82 Clinton av., Newark (7)
Fliegel, Hilda C., 309 Baldwin av., Jersey City (9)
Fliegel, William M., 85 W. Passaic st., Maywood (2)
Flint, Edgar T., 44 E. Somerset st., Raritan (18)
Flood, Hugh E., 25 Wade st., Jersey City (9)
Flower, Morrie A., 39 Lincoln Park, Newark (7)
Fluck, David A., 626 W. State st., Trenton (11)
Fluck, Paul H., 73 N. Union st., Lambertville (10)
Flynn, Edward A., 176 Washington av., Bellev'e (7)
Foley, James F., 344 N. Grove st., East Orange (7)
Follette, William J., 67 Oak st., Tenafly (2)
Folsome, Clair E., 1075 Central av., Plainfield (20)
Fonda, Gerald E., 6 Parkview dr., Millburn (7)
Foote, Sherman K., Clinton av., Wyckoff (16)
Forer, Robert, 434 Bellevue av., Trenton (11)
Forestiere, Jasper, 10 Park pl., Morristown (14)
Forney, Norman N., 94 N. Main st., Milltown (12)
Forney, Norman N., Jr., Stelle av., Milltown (12)
Forsberg, Roy T., 110 W. Fifth av., Roselle (20)
Fort, William B., 131 Crescent av., Plainfield (20)
Forte, Daniel L., 545 Central av., Orange (7)
Forte, F. Chester, 374 Park st., Hackensack (2)
Forte, Frank S., 318 Roseville av., Newark (7)
Fortuin, Floyd, 434 Park av., Paterson (16)
Fortunato, Samuel J., 90 Kenwood pl., E. Orange (7)
Fost, William H., 107 Franklin st., Belleville (7)
Foster, Charles D., III, 16 Wildwood av., Pitman(8)
Foster, Frank L., 320 Springfield av., Cranford (20)
Fowler, Richard M., Jr.,112 N.Indiana av.,Atl. City(1)
Fowler, Royale H., 744 Broad st., Newark (7)
Fox, Wm. W., 101 S. Indiana av., Atlantic City (1)
Frame, Dorothy L., 15 Highland av., Glen Ridge (7)
Francy, Donald G., 314 Stuyvesant av.,Lyndhurst(7)
Frank, Geza M., 56 Hedden ter., Newark (7)
Frank, Herman I., 98 W. 35th st., Bayonne (9)
Frank, Morris, 920 Avenue C, Bayonne (9)
Frank, Myrtile, 227 Philadelphia av., Egg Harbor(1)
Frank, Nathan, 180 Bowers st., Jersey City (9)
Frank, Perry, 227 Philadelphia av., Egg Harbor (1)
Frank, Simon C., 62 Ridge rd., North Arlington (7)
Frank, Ulysses M., 12 Undercliff rd., Millburn (7)
Frankel, Theodore H.,S.Baltim'e G.H.,Baltim'e,M.(20)
Franklin, Charles M., 56 Elm rd., Princeton (11)
Franklin, Frank A., 256 S. Centre st., Orange (7)
Franklin, Joseph E., 191 North av., Hillside (20)
Franklin, Lewis J., 149 Jean ter., Union (20)
Franklin, Richard L., 191 Palisade av., Jer. City (9)
Frantz, Max K., 624 S. Fifth st., Camden (4)
Franzoni, Andrew E., 938 Brunsw'k av.,Trenton(11)
Fratantuno, Michael J., 14 Vermont av., Newark (7)
Fraulo, Louis, 241 Crooks av., Clifton (16)
Frazee, William H.,Jr., Chambers W.H.,Penns G.(17)
Frederick, George F., 179 Main st., Woodbridge (12)
Freedman, Harold H., 63 W. Main st., Freehold (13)
Freeland, Frank, 39 Catalpa av., Hackensack (2)
Freeman, George C., Prudential Ins. Co., Newark(7)
Freeman, Ray M., 2011 St. Georges av., Rahway (20)
Freeman, William S., Washoe Med. Cen,Reno,N.(12)
Freyberger, George A.,1518 Berg'nline av.,UnionC.(9)
Freymann, Walter, 5006 Hudson av., W. N. Y. (9)
Fridrich, Harry E., 4172 Federal st., Camden (4)
Friedburg, George H., 1108 Anna St. Elizabeth (20)
Friedenberg, Sidney, 2990 Alabama rd., Camden (4)
Friedenthal, Bernard, 88 Liv'gst'n av.,N.Br'sw'k(12)
Friedland, Arnold J., Whitefield, N. H. (6)
Friedlander, Erwin W.,213 Westfield av.,Elizab'h(20)
Friedlander, Kurt F., 370 W. Market st., Newark(7)
Friedman, Abraham I., 405 State st., Hackensack(2)
Friedman, Edna C., 732 E. 26th st., Paterson (16)
Friedman, Harry, 721 S. 16th st., Newark (7)
Friedman, Hyman, 1096 Sanford av., Irvington (7)
Friedman, Max, 849 W. State st., Trenton (11)
Friedman, Meyer H., 949 W. State st., Trenton (11)
Friedmann, Gustav, 425 Park av., Paterson (16)
Friedmann, Leonard L., 484 Princeton av.,Tr't'n(11)
Friedrich, Adam H., 47 Clark st., Manasquan (7)
Frieman, Hyman, 744 Avenue C, Bayonne (9)
Friery, John F., 62 E. Broad st., Bergenfield (2)
Frisch, Felix, 740 W. State st., Trenton (11)
Fritts, Lewis C., 118 West End av., Somerville (18)
Fritz, John F.,Jr.,22 Pennsylvania av.,Flem'gt'n(10)
Froelich, Jerome J., Army (7)
Froelich, Joseph C., 74 Ingraham pl., Newark (7)
Fromkin, Charles, 20 Bank st., Bridgeton (6)
Frosch, Frank J., 1423 Pennington rd., Trenton (11)
Frost, Inglis F., 181 South st., Morristown (14)
Fruchtbaum, Robert P., 431 Franklin av., Nutley(7)
Fuchs, Jacob N., 1267 S. Broad st., Trenton (11)
Fuhrmann, Barclay S., 5 Main st., Flemington (10)
Fuhrmann, John B., 10 Main st., Flemington (10)
Fullerton, Harry W., Jr., 86 Shell rd.,Carney'sP.(17)
Fullilove, Robert E., Jr., 24 Waverly av., Newark(7)
Furey, Joseph A., 224 E. Wildwood av., Wildw'd (5)
Furman, Benjamin A., 31 Roseville av., Newark (7)

Furman, Sol T., 344 Fairmount av., Jersey City (9)
Furst, Nathan J., 299 Clinton av., Newark (7)
Furst, William, 188 Clinton av., Newark (7)

ASSOCIATE MEMBERS

Fares, Louis G., 263 Hamilton av., Trenton (11)
Farley, William, 17 Elwood pl., Newark (7)
Fishman, Louis, 564 S. Main st., Hightstown (11)
Flynn, John T., 2459 Lemoine av., Coytesville (2)
Fonda, Donald A., 254 E.Ridgewood av.,Ridgew'd(16)
Freeman, Robert F.,1230 Raritan av., Highl'd P.(12)

G

ACTIVE MEMBERS

Gadek, Raymond J., 27 Burchard st., Fords (12)
Gadek, Stanley A., 95 Fayette st., Perth Amboy (12)
Gadek, William V., 215 High st., Perth Amboy (12)
Gadomski, Casimir F., 331 S. Broad st.,Elizabeth(20)
Gadomski, Joseph, 245 S. Wood av., Linden (20)
Galioto, Frank M., 31 Clarendon pl., Bloomfield (7)
Gallardo, Agustin, 61 Lakeside av., Pompton L.(16)
Gallo, James S., 500 Market st., Paterson (16)
Gamba, Joseph, 388 Fairmount av., Newark (7)
Gambacorta, Leopoldo, 397 N. 13th st., Newark (7)
Gambacorta, Otto, 98 Broad st., Bloomfield (7)
Gambill, Perry J., N.J. State Hosp., Greystone P.(14)
Gamon, Robert S., 514 Cooper st., Camden (4)
Ganley, Arthur J., 390 Park av., East Orange (7)
Gannon, John R., Passaic Gen. Hosp., Passaic (16)
Gannon, Joseph M., 149 Crescent av., Plainfield (20)
Ganot, Frank I., 392 Ridge st., Newark (7)
Gantt, Margaret H., 43 Hillcrest rd., Madison (14)
Garber, Robert S., N. J. State Hosp., Trenton (11)
Gardam, Joseph W., 16 Longfellow av., Newark (7)
Gardiner, Muriel M., Brookdale Farm, Penn'gt'n(11)
Gardner, Kenneth E., 45 Freemont st., Bloomfield(7)
Garfinkel, Abraham, 1801 Greenw'd av.,Trenton(11)
Garibaldi, Louis J., 1018 Hudson st., Hoboken (9)
Garnett, Robert, 285 Lexington av., Passaic (16)
Garrison, Sherman, 108 W.Commerce st.,Bridget'n(6)
Gartlan, Bernard W., 405 Main st., Toms River (15)
Garwood, Norman W., Church st., Crosswicks (11)
Garzieri, Anthony, 492 Union av., Paterson (16)
Gaspar, Istvan A., 407 Warwick av.,W.Englew'd(2)
Gatti, Joseph D., 80 Clarendon pl., Hackensack (2)
Gaugier, Louis C., 85 Up. Mountain av., Montclair(7)
Gaydos, Albert, 225 Hillside av., Nutley (7)
Geannette, Ernest D., 14 Harrison av., Montclair(7)
Geary, Paul, 909 Park av., Plainfield (20)
Gebele, William X., Jr., 421 Second st.,Lakewood(15)
Ged, Archie K., 1133 Main st., Paterson (16)
Gehl, Raymond H., 114 Lyons av., Newark (7)
Gehl, Sidney H., 83 Wolcott ter., Newark (7)
Geib, Margaret E., 1277 Clinton pl., Elizabeth (20)
Geiger, Harold C., Main st., West Milford (16)
Geissler, Elmer E., 327 Monmouth st., Gloucester(4)
Gelb, Jerome, 11 Lenox av., South Orange (7)
Gelber, Isaac, 712 N. Broad st., Elizabeth (20)
Geller, Joseph J., 137 Ellison st., Paterson (16)
Geller, Samuel, 696 High st., Newark (7)
Gellman, William B., 163 Valley Blvd., Wood-R'ge(2)
Gelman, Sidney, 600 E. 27th st., Paterson (16)
Gencher, Benjamin, 33 Park av., Caldwell (7)
Gennell, Ernest, 298 Parker st., Newark (7)
Gentile, Ernest R., 125 Hamilton st., Bd. Brook (18)
George, Amerigo, 153 Third av., Long Branch (13)
George, Melbourne E. W., 744 Broad st., Newark (7)
Gerard, Arpad G., 502 Rahway av., Woodbridge (12)
Gerard, Patrick D., 364 Roseville av., Newark (7)
Gerendasy, Julius, 956 E. Jersey st., Elizabeth (20)
Gerhardt, Paul E., 1170 Clinton av., Irvington (7)
Gerhart, Margaret W., 77 Main st., Mantua (8)
German, George B., 15 W. Walnut av., Merch'tv'e(4)
Gerne, Timothy A., 972 Summit av., Jersey City (9)
Gershenfeld, David B., 73 Shanley av., Newark (7)
Gershman, Joseph G., 185 E. Madison av.,Dumont(2)
Gerson, Stanley, 480 Park av., Paterson (16)
Gessner, Gerard R., 159 New st., N. Brunswick (12)
Gesswein, Carl A., 35 Church st., Matawan (13)
Gewanter, Aaron P., Somerset Hosp., Somerv'le (18)
Ghee, Euclid P., 115 Claremont av., Jersey City (9)
Giacalone, Vincent, E. Landis av., Vineland (6)
Giacona, Joseph, 215 Lincoln av., Union (20)
Giambra, Sante M., 400 Park av., Paterson (16)
Gian-Grasso, Joseph A.,343 Hamilton av.,Trent'n(11)
Giannasio, Joseph, 2630 Boulevard, Jersey City (9)
Gianni, Angelo R., 37 Main st., Netcong (14)
Giannini, Francis F., Mine Brook rd., Far Hills (18)
Giannotto, Anthony S., 403 S. 10th st., Newark (7)
Gianquinto, Peter, St. Barnabas Hosp., Newark (7)
Giardina, John S., 321 Walnut st., Newark (7)
Giardina, Vincent J., 102 Jefferson st., Newark (7)
Gibb, Alice S., 339 Union av., Elizabeth (20)
Gibbins, A. Leslie, 60 Roseville av., Newark (7)
Gibson, Augustus, Mendham (7)
Gibson, Edgar T., 530 Cooper st., Camden (4)
Giffoniello, Arthur A., 334 Roseville av., Newark(7)
Gifford, William R., 247 Park av., East Orange (7)
Giglio, Alphonsus S. V., 626 Elizab'h av.,Eliz'beh(20)
Giglio, Louis A., 610 E. 27th st., Paterson (16)
Gilady, Raphael, 205 Union st., Hackensack (2)
Gilbert, Philip D., 514 Cooper st., Camden (4)
Gilbert, Samuel M., 144 Clinton av., Newark (7)
Gilbertson, Robert L., 26 Maple av., Morristown (14)
Gillespie, John L., 26 Midland av., Arlington (7)
Gilman, Leonard, 6 S. Fullerton av., Montclair (7)
Gilmour, Thomas J., Jr., 19 Maple av.,Keansburg(13)
Gilpatrick, Charles E., 18 Spring st.,PennsGrove(17)
Ginsberg, George, 624 Bloomfield st., Hoboken (9)
Ginsburg, Samuel, 227 Paulison av., Passaic (16)
Giordano, Salvatore, 13 DeHart st., Morristown (14)
Giordano, William C., 948 Maple av., Ridgefield (2)
Girard, Anthony J., 22 Taunton av., Berlin (4)
Gitlitz, Abraham J., 54 Joyce rd., Tenafly (9)
Gittelman, Morton, 426 Westminster av.,Elizab'h(20)
Gittelsohn, Isador, 700 Kinderkam'k rd.,River E. (2)
Gitterman, David A., 519 Engle st., Englewood (2)
Giudice, Vincent W., Harrison av., Waldwick (2)
Giuffra, Frank, 161 Park st., Montclair (7)
Giuliana, Robert A., 31 Central av., Newark (7)
Glaser, Emanuel, 360 Linden av., Elizabeth (20)
Glass, Benjamin E., 609 Watchung av.,Plainfield(20)
Glass, George A., 282 E. Main st., Somerville (18)
Glass, Harry L., 1009 Park av., Plainfield (20)
Glass, Oscar, 838 S. 12th st., Newark (7)
Glass, William H., 144 Harrison st., East Orange(7)
Glasser, Benjamin F., 316 George st.,N.Brunsw'k(12)
Glazer, Edward, 84 Richmond av., Deal (13)

Glazier, Jesse T., 670 Sanford av., Newark (7)
Gleason, Edwin A., 115 Wesley av., Erlton (4)
Gleason, James F., 7 S. Oxford av., Ventnor (1)
Gleason, Thomas P., 82 W. Fifth st., Bayonne (9)
Gleeson, William J., 640 Bergen av., Jersey City (9)
Glesmann, John B., 1 Brookside av., Somerville (18)
Glick, Bernard, 307 Stuyvesant av., Lyndhurst (2)
Glover, Lawrence L., 53 Kings Hgy. W., Had'nf'd(4)
Gluckman, Saul K., 78 Johnson av., Newark (7)
Glynn, Robert, 54 Girard pl., Newark (7)
Gobel, Stanley J., Box 284, Bound Brook (12)
Gochman, Harry M., 166 Hamilton av., Paterson(16)
Godfrey, Alan O., 231 Roseville av., Newark (7)
Goeller, Jacob D., 1165 W. Clinton av., Irvington (7)
Goffman, Emanuel, 316 Claremont av., Montclair(7)
Goldberg, Benjamin M., 1156 E. State st.,Trent'n(11)
Goldberg, Bernard R., 76 Clinton av., Newark (7)
Goldberg, David, 336 Westwood av., Westwood (2)
Goldberg, Harold H., 814 S. Tenth st., Newark (7)
Goldberg, Harry C., 7 Watchung av., Plainfield (20)
Goldberg, Isidore, 303 N.Washington av.,Dunel'n(12)
Goldberg, Jacob, 155 Franklin av., Long Branch (13)
Goldberg, Louis E., 31 Lincoln Park, Newark (7)
Goldberg, Samuel A., 169 Gregory av., W. Orange(7)
Golden, Clement H., 30 Myrtle av., Irvington (7)
Golden, William M., 236 W. Milton av., Rahway (20)
Goldenberg, Raphael R., 588 E. 27th st.,Paterson(16)
Goldfarb, Abraham, 660 Broadway, Paterson (16)
Goldfield, Harold H., 225 E. Jersey st., Elizabeth(20)
Golding, Harry N., 180 Carroll st., Paterson (16)
Goldmacher, Herman B., 113 Elmora av.,Elizab'h(20)
Goldman, David L., 42 W. 22nd st., Bayonne (9)
Goldman, Jerome, 1 Johnson av., Newark (7)
Goldman, Leo L., 325 Market st., Trenton (11)
Goldman, Lester M., 53 Leslie st., Newark (7)
Goldman, Louis C., 6 N. Austin av., Ventnor (1)
Goldman, Samuel, 414 Cooper st., Camden (4)
Goldman, Solomon, 161 Livingston av.,N.Br'sw'k(12)
Goldowsky, Ira, 2540 Boulevard, Jersey City (9)
Goldsmith, Alfred S., 8129 Boulevard, N. Bergen (9)
Goldstein, Abraham, 404 Madison av., Lakewood(15)
Goldstein, Benjamin, 708 Grand av., Asbury P. (13)
Goldstein, Edward W., 561 E. 28th st., Paterson (16)
Goldstein, Henry Z., 31 Lincoln Park, Newark (7)
Goldstein, Herman H., 318 W.Jersey st.,Elizab'h(20)
Goldstein, Hyman I., 1425 Broadway, Camden (4)
Goldstein, Samuel, 34 E. Main st., Mays Landing (1)
Goldstein, Samuel M., 40 Johnson av., Newark (7)
Golish, Harry L., 425 15th av., Paterson (16)
Gonczy, Edward J., 420 Jersey av., Elizabeth (20)
Good, Richard B., 4619 Park av., Union City (9)
Goodman, Harry P., 101 S. Indiana av.,Atlantic C.(1)
Goodman, Kenneth, 141 Park av., East Orange (7)
Goodman, Rowland D.,II, 265 S.Harrison st.,E.Or.(7)
Goodman, Stanley J., 89 Lincoln Park, Newark (7)
Goodspeed, William K., Valley rd.,R.D.1,Plainf'd(20)
Gordon, A. Julius, 140 Roseville av., Newark (7)
Gordon, Charles D., Mt. Arlington (14)
Gordon, J. Berkeley, N. J. State Hosp., Marlboro(13)
Gordon, Maurice B., 6917 Atlantic av., Ventnor (1)
Gordon, Milton H., 12 N. 27th st., Camden (4)
Gordon, Samuel, 540 Park av., Paterson (16)
Gordon, William, 648 Ringwood av., Wanaque (16)
Gorenberg, Harold, 55 Bentley av., Jersey City (9)
Gorman, Robert B., 410 Kinderkamack rd.,Oradell(2)
Gorman, Rosemary, 811 N. Broad st., Elizabeth (20)
Gormley, Cyrus M., 320 Broadway, Paterson (16)
Gorog, Nicholas M., 159 Bayard st., N. Br'sw'k (12)
Gorson, Samuel F., 2005 Pacific av., Atlantic City(1)
Gorten, Manfred L., 669 Elizabeth av., Newark (7)
Gosper, Ralph W., 5719 Westf'd av.,Penns'k'nTsp.(4)
Gottlieb, Morris, 1616 Pacific av., Atlantic City (1)
Gould, John H., 92 Monte Vista av., Ridgewood (16)
Gould, Louis F., 95 Market st., Perth Amboy (12)
Gould, Werner, 219 Passaic st., Hackensack (2)
Gove, Richard R., Jr., 46th & Blvd., Brant Beach(15)
Goyne, James B., 2663 Main st., Lawrenceville (11)
Graber, Irving, 500 Tenth av., Belmar (13)
Graeter, F. Albert, 43 Barry pl., Passaic (16)
Graft, Richard S., 44 Green av., Madison (14)
Graham, Ernest E., 66 Clark av., Somerville (11)
Graham, Richard B., 720 Boston blvd., Sea Girt (13)
Graham, Theodore K., 279 Park av., Paterson (16)
Granger, James R., 235 Spring st., Trenton (11)
Grant, Francis, 1224 Salem av., Hillside (7)
Grant, Raymond J., 117 S. Main st., Wharton (14)
Grant, Russell B., 47 Prospect av., Hackensack (2)
Grant, William E., 1370 Morris av., Union (20)
Grant, William F., 309 Roseville av., Newark (7)
Gras, Alfred E., 140 Roseville av., Newark (7)
Gray, Charles M., 6th & Grape sts., Vineland (6)
Gray, John W., 142 Clinton av., Newark (7)
Gray, W. Burritt, 828 Madison av., Plainfield (18)
Greeley, David M., 245 Nassau st., Princeton (11)
Green, David W., 69 Market st., Salem (17)
Green, Martin, 1922 Pacific av., Atlantic City (1)
Green, Thomas J., New Egypt (15)
Greenberg, George A., 195 W. High st., Somerv'e(18)
Greenberg, Jacob L., 189 16th av., Newark (7)
Greenberg, Max, 29 W. Henry st., Linden (20)
Greenberg, Nathan H., 29 Osborne ter., Newark (7)
Greenberg, Philip, 1919 Boulevard, Jersey City (9)
Greene, Albert D., 915 Palisade av., Union City (9)
Greene, Edwin C., 61 N. Pearl st., Bridgeton (6)
Greene, Harry, 90 Duncan av., Jersey City (9)
Greene, Richard W., 32 Johnson av., Newark (7)
Greene, Robert F., 1604 Central av., Union City (9)
Greenfield, Arthur W., 50 Anderson st.,Hackens'k(2)
Greenfield, Bernard H., 691 Clinton av., Newark (7)
Greenfield, Herbert, 31 Lincoln Park, Newark (7)
Greenfield, Leonard S., 691 Clinton av., Newark (7)
Greenfield, Sylvan J., 412 Wyoming av.,Maplew'd(7)
Greenfield, William J., 50 Anderson st.,Hackens'k(2)
Greengrass, Jacob J., 146 Broadway, Paterson (16)
Greenwald, Eugene, 100 Hollywood av., Hillside (7)
Greenwald, Theodore L., 1 Wetmore av.,Morrist'n(7)
Greenwell, Albert W., 6 S. Brookw'd dr.,Montcl'r(16)
Greenwood, Samuel B., 190 Clinton av., Newark (7)
Greer, Melvin A., 190 Washington st., Bloomf'd (7)
Gregory, Marie F., 50 Green Village rd.,Madison(14)
Gregory, Mildred G., 64 N. Ninth st., Newark (7)
Greifinger, Marcus H., 31 Lincoln Park, Newark(7)
Greifinger, William, 22 Vassar av., Newark (7)
Grenhart, George W., 714 Market st., Camden (4)
Gresser, Newton H., 7 Romaine ct., Hackensack (2)
Gricco, Anthony L., 306 S. East av., Vineland (6)
Grieco, Emil H., 19 W. 22nd st., Bayonne (9)
Grier, Robt. M., 50 E.Washington av.,Pleasantv'le(1)
Griesemer, Laurence C., 515 Locust st., Roselle (20)
Griesemer, Z. Lawrence,1145 E.Jersey st.,Eliz'b'h(20)
Griffey, William C., 1049 Haddon av., Collingsw'd(4)
Griffin, Guy B., 208 S. Centre st., Orange (7)
Grimes, Robert R., 134 Bergen av., Ridgefield P. (2)
Griscom, Lee E., 604 Broadway, Camden (4)
Griswold, Merton L., Jr., 947 Park av., Plainfield(20)
Groff, Parker A., 159 Wash'gton av., Little Ferry(2)
Gross, Irving, 16 Grove av., Verona (7)
Gross, Max, 4 S. Cornwall av.. Ventnor (1)
Gross, Robert J., Knollcroft rd., Lyons (18)
Grossbard, Paul, 211 Lexington av., Passaic (16)
Grossblatt, Philip, 31 Lincoln Park, Newark (7)
Grossman, Harold W., 2553 Boulevard, Jer. City (9)
Grossman, Rubin, 377 Avenue C, Bayonne (9)
Grossman, Walter, 77 Livingston av., N. Br'sw'k(12)
Grubin, Charles J., 123 Hillside av., Hillside (7)
Grubin, Harold, 690 Clinton av., Newark (7)
Grubowski, Joseph N., 477 Jersey av., Jer. City (9)
Grunberg, Albert, 18 S. Munn av., East Orange (7)
Grundfest, Jack, 659 Kearny av., Arlington (7)
Grundfest, Philip, 53 Kearny av., Kearny (7)
Grundorfer, Joseph, 201 Lyons av., Newark (7)
Guarraia, Joseph, 106 Florence av., Hawthorne (16)
Guglielmelli, Angelo D., 449 Hamilt'n av.,Tr'nt'n(11)
Guion, Edward, 1219 S. Main st., Pleasantville (1)

Guito, Frank, 626 Mattison av., Asbury Park (13)
Gulick, James B., 363 Carteret pl., Orange (7)
Gullord, Edward G., 21 Trinity pl., Montclair (7)
Gurland, Benjamin B., 146 W. 37th st., Bayonne (9)
Gurley, Katharine A., 2671 Boulevard, Jer. City (9)
Gurnee, Quinby D., 168 Diamond Br.av.,Hawth'n(16)
Gurshman, Sol, 280 Amboy av., Metuchen (12)
Guthrie, Wilson G., 550 Parker st., Newark (7)
Gutowski, Joseph M., 433 Brace av., P. Amboy (12)
Gutowski, Walter T., 104 Grove ter., Irvington (7)

ASSOCIATE MEMBERS

Garben, Louis F., Jr., 1182 Broad st., Bloomfield (7)
Gearren, John B., 100 Farnsworth av., Bordent'n(11)
Gilbert, Lawrence, 365 Osborne ter., Newark (7)
Glaus, Samuel D., 328 Lincoln av., Avon (13)
Goldstein, Oscar E., 120 Passaic av., Passaic (16)
Green, George G., 601 Grand av., Asbury Park (13)
Greenwald, Alfred E., 500 Essex st., Hackensack (2)
Grimes, Vera J., 819 Elm av., Teaneck (2)
Guthorn, Peter J., Navy (7)
Guttmann, John S., 89 Mahar av., Clifton (16)

H

ACTIVE MEMBERS

Hackett, Daniel C., 132 S. Euclid av., Westfield (20)
Hadley, C. Frazer, 210 W. Maple av., Merch'tv'e(4)
Hadley, C. Frazer, Jr., 21 Haddon av., Westmont (4)
Hafetz, M. Morris, 114 Centre st., Trenton (11)
Hager, George W., Jr., 8th & Market sts., Camden (4)
Haggerty, D. Leo, 227 N. Warren st., Trenton (11)
Haggerty, Francis F., 724 Hudson st., Hoboken (9)
Hagovsky, Albert J., 301 Hackensack st.,Carlst't(2)
Hahn, Katherine B., 372 Thornden st., S. Orange (7)
Hahn, William H., 198 Clinton av., Newark (7)
Haines, Emerson S.,614 Winderm're av.,Interla'n(13)
Haines, Keith E., 300 S. Broadway, Camden (4)
Haines, Mabel C. S., 600 Wt. Horse Pk., Audubon(4)
Halbeisen, William A., 511 Cooper st., Camden (4)
Halbstein, Bernard M., 138 Bath av., L. Branch (13)
Haldeman, Robert E., 34 Garden st., Mt. Holly (3)
Haley, Paul W., 719 Sanford av., Newark (7)
Hall, Perry O., 35 Bentley av., Jersey City (9)
Hall, Ralph A., 547 E. Broad st., Westfield (20)
Hall, Wayne W., 515 Broadway, Paterson (16)
Hall, Winthrop H., 400 Elm st., Westfield (20)
Haller, Olga, 182 Roseville av., Newark (7)
Halligan, Earl J., 254 Montgomery st., Jersey C. (9)
Hallinger, Earl S., 517 Cooper st., Camden (4)
Hallock, Wilton J., 650 Springfield av., Summit (20)
Halperin, David, 590 Bergen av., Jersey City (9)
Halpern, Herman, 143 Engle st., Englewood (2)
Halpern, Samuel, 7405 Ventnor av., Margate C. (1)
Halprin, Harry, 145 Union st., Montclair (7)
Hamburg, Meyer M., 60 N. Sixth av.,Highland P.(12)
Hamburger, Werner, 1616 Pacific av., Atlantic C.(1)
Hamilton, James R., 1301 Hudson st., Hoboken (9)
Hamilton, Lloyd A., 46 York st., Lambertville (10)
Hamilton, Robert G., 100 Main st., Orange (7)
Hamley, John J., 153 Second st., Elizabeth (20)
Hammett, Lee J., 760 N. 27th st., Camden (4)
Hancock, Michael Q.,Third av., & River rd.,Belm'r(13)
Hand, Frederick G., 119 Irvington av., S. Orange(7)
Handler, Harry, 305 York st., Jersey City (9)
Haney, John J., 850 Hamilton av., Trenton (11)
Hanfling, Seymour L., 115 S. Munn av., E. Or. (7)
Hanrahan, James, 678 N. Broad st., Elizabeth (20)
Hansen, Harold T., 153 Irvington av., S. Orange (7)
Hansen, Harry, 1006 Park av., Plainfield (20)
Hansen, Kurt M., 410 N. Third st., Millville (6)
Hanson, Alfred S., 33 Cuthbert Blvd., Westmont (4)
Hanson, Carl G., 38 Springfield av., Cranford (20)
Hantman, Harold, 196 Roseville av., Newark (7)
Harbeson, James P.,III, 460 Loucraft rd.,Had'nf'd(4)
Harden, Albert S., 510 W. Market st., Newark (7)
Harden, Albert S., Jr., 551 Ridgew'd rd.,Maplew'd(7)
Hardy, John W., 53 Main st., Farmingdale (13)
Harley, Halvor L., 101 S. Indiana av., Atl. City (1)
Harley, Robison D., 101 S. Indiana av., Atl. City (1)
Harman, J. Reginald, 824 W. State st., Trenton (11)
Harms, Charles R., 363 Park st., Montclair (7)
Harps, James A., 72 Center st., Clinton (10)
Harrington, J. Henry, 40 E. Main st.,Rockaway(14)
Harris, Edwin A., 146 E. Main st., Moorestown (3)
Harris, Jonathan L., 89 Lincoln Park, Newark (7)
Harris, Leonard, 299 Clinton av., Newark (7)
Harris, Maurice N., 205 Irving av., Bridgeton (6)
Harris, Morris, 102 Broad st., Bloomfield (7)
Harris, Sidney, 301 W. Fifth av., Roselle (20)
Harris, William G., Main st., Mullica Hill (8)
Harris, William O., 32 N. New Jer. av., Atl. City (1)
Harryman, William K., 271 Union st., Hackens'k(2)
Harter, Louis F., 174 Bowers st., Jersey City (9)
Hartman, Luther M., 111 E. Main st.,Maple Shade(3)
Hartman, Winfield L., Jr., 7 Fielding ct., S.Orange(7)
Hartmann, Edmund M.,1414 Chetw'd av.,Plainf'd(18)
Harvey, Robert K., 711 Kearny av., Arlington (7)
Harvey, Thomas W., 59 Main st., Orange (7)
Harwood, Harry L.,64 W.CentralBlvd.,PalisadesP.(2)
Harz, William V., 880 Avenue C, Bayonne (9)
Haschec, Walter, 690 S. 19th st., Newark (7)
Hasking, Arthur P., 318 Montgomery st., Jer. City(9)
Hasney, Frederick A., 118 Main st., West Orange(7)
Hatch, Harold S., Shonghum Mt. Sana.,Morrist'n(14)
Hatem, Elias J., 1036 Main st., Paterson (16)
Hathaway, George, Jr., 149 Prospect st., Passaic(16)
Hauck, Francis A., 4614 Landis av., Sea Isle City(5)
Hauck, Lydia R. B., 644 Stuyvesant av.,Irvington(7)
Hauck, William H., 644 Stuyvesant av.,Irvington(7)
Hauptman, Harry, 88 Sherman pl., Jersey City (9)
Hausman, Samuel W., 50 W. Front st.,Red Bank(13)
Haut, Edward M., 21 Main st., Farmingdale (13)
Haut, Gail W., 32 General Wayne Vil., Madison (14)
Hawes, Vernon L., 63 Church st., Ramsey (2)
Hawkes, E. Zeh, 161 Roseville av., Newark (7)
Hawkes, Stuart Z., 161 Roseville av., Newark (7)
Hayden, Walter G., 504 Main st., Toms River (15)
Hayes, Gerald W., 86 Hawthorne av., E. Orange (7)
Hayman, Irving R., 681 Broadway, Paterson (16)
Haywood, Henry, 49 Paterson st., N. Brunsw'k(12)
Heatley, William, 29 Drummond pl., Red Bank (13)
Hebble, Howard M., 320 Chester av., Moorestown (3)
Hegeman, Runkle F., 161 W. High st., Somerv'e(18)
Heineken, Theodore S., 17 Park pl., Bloomfield (7)
Heisen, Aaron J., Imlaystown (13)
Hekimian, Jacob H., 2314 Palisade av.,Weeh'wk'n(9)
Helden, Gerard O., 15 Anderson st., Hackensack (2)
Helff, Joseph R., 1367 Teaneck rd., W. Englewood(2)
Heller, Abraham R., 494 Belgrove dr., Arlington (7)
Heller, George, 460 Engle st., Englewood (2)
Heller, Nathan B., 31 Lincoln Park, Newark (7)

Hely, Charles J.,Jr.,20 Stoneleigh rd., Westfield (20)
Heminway, Norman L.,106 Short Hills av.,Sh't H.(20)
Hemphill, Everett H.,274 Kings Hwy.,E.,Had'nf'd(4)
Henderson, George T., 312 Church st., Bd.Brook(12)
Henderson, Worth W., Army (20)
Hendrickson, Harold W., Edgewood av.,Cedarville(6)
Henle, Carye-Belle, 202 Clinton av., Newark (7)
Hennig, Paul F., 688 Stuyvesant av., Irvington (7)
Henriksen, J. Bruce, 422 River av., P. Pleasant (15)
Henry, George, 33 Mine st., Flemington (10)
Henry, Norman, 643 Wood st., Vineland (6)
Hensle, Otto S., 210 Main st., Hackensack (2)
Herbener, Eugene G., 423 Third st., Lakewood (15)
Herbert, William A., 111 Fifth av., Avon (13)
Herman, Isadore, 119 Quincy st., Passaic (16)
Hermann, John H., 197 S. Centre st., Orange (7)
Hermann, John H., Jr., 197 S. Centre st., Orange (7)
Herndon, Lewis S., 144 Harrison st., East Orange(7)
Herradora, Juan R., 2750 Boulevard, Jersey City(9)
Herrington, Lee R., 643 E. Broad st., Westfield (20)
Hersh, David H., Navy (7)
Hershey, Harry H., 921 Bergen av., Jersey City (9)
Hersohn, William W., 14 N.Rumson av.,Marg'e C.(1)
Hertzberg, Irving, 586 Kearny av., Kearny (7)
Hess, L. Elmore, 19 E. Bolton av., Absecon (1)
Hesseltine, Clair E., 305 Main st., South Amboy (12)
Hessert, Edmund C., 417 Cooper st., Camden (4)
Heyman, Arthur, 89 Lincoln Park, Newark (7)
Heyman, Ernest F., 345 Broad st., Red Bank (13)
Heyman, Jacob, 846 S. 12th st., Newark (7)
Hicks, Alfred M., 29 Hatfield st., Caldwell (7)
Hiden, Joseph C., 199 Nassau st., Princeton (11)
Higdon, Albert L., 745 Queen Anne rd., Teaneck (2)
Higgins, Eugene V., 1180 Raymond blvd.,Newark(7)
Higgins, John T., 145 Highland av., Jersey City (9)
Higgins, Thomas A., 2616 Boulevard, Jersey City(9)
Higi, Joseph E., 61 Hawthorne av., East Orange (7)
Hiler, Stuart A., 62 Rockaway av., Rockaway (14)
Hilker, George F., 258 Maple st., Perth Amboy (12)
Hill, Arthur G., 324 Grove st., Montclair (7)
Hill, Clarence T., 116 E. Hazelwood av., Rahway(20)
Hill, Dean F., 31 Bank st., Sussex (19)
Hill, James O., 84 Barclay st., Newark (7)
Hill, Robert H., 227 Roseville av., Newark (7)
Hillel, Joseph, 425 77th st., North Bergen (9)
Hilliard, William T., 105 Market st., Salem (17)
Hillman, Ernest C., Jr., 300 Broadway, Newark (7)
Hillmann, Frederick C.,64 Hamilton st.,Paterson(16)
Hillsman, R. Bryan, 681 Queen Anne rd.,Teaneck(2)
Hilton, Clarence O., 556 N. Seventh st., Newark (7)
Himadi, George M., Overlook Hospital, Summit (20)
Hinckley, Livingston S., 182 Clinton av., Newark(7)
Hindle, F. Lawton, 145 Maple av., Red Bank (13)
Hines, Harrison R., 710 Grand av., Asbury Park(13)
Hingston, William L., 110 Main st.,Williamstown(8)
Hipple, Percy L., 118 E. Fifth av.,Roselle (20)
Hird, Emerson F., 118 E. Maple av., Bd. Brook (18)
Hirsch, Albert, 1554 Irving st., Rahway (20)
Hirsch, Arthur, 811 DeHirsch av., Woodbine (5)
Hirsch, John J., 191 Wallington av., Wallington (2)
Hirsch, Luclen, 160 E. Seventh st., Plainfield (20)
Hirsch, Theodore, 842 S. 13th st., Newark (7)
Hirschfield, Bernard A., 375 W. State st.,Trenton(11)
Hirshorn, Arthur, 539 Monmouth st., Gloucester (4)
Hitschmann, Otto B., 97 Lincoln Park, Newark (7)
Hitzemann, Louis A., 381 Park st., Hackensack (2)
Hnat, Frederick, 565 Newark av., Elizabeth (20)
Hobart, Richard T., 454 Park st., Up. Montclair (7)
Hoch, Samuel M., 240 Hillside rd., Elizabeth (20)
Hochheimer, Arthur, 417 Somerset st., Bd.Brook(18)
Hochman, Alex, 388 12th av., Paterson (16)
Hodas, Sidney M., 268 Broad st., Red Bank (13)
Hofbauer, Ernest, 608 Parkway av., Trenton (11)
Hofer, Clarence J. M., 463 Main st., Metuchen (12)
Hofer, William R., 125 Main st., Williamstown (4)
Hoffman, Charles A., 302 E. Seventh st., Plainf'd(20)
Hoffman, Charles W.,216 Bordent'n av.,S.Amboy(12)
Hoffman, Florentine M., 91 Bayard st.,N.Br'sw'k(12)
Hoffman, George A., 234 Fort Lee rd., Leonia (2)
Hoffman, Harry, 805 Park av., Plainfield (20)
Hoffman, Harry F., 31 S. Drive, W. Pt. Pleasant(15)
Hoffman, Harry S., 3302 Pacific av., Atlantic City(1)
Hogan, Marshall D., 44 Madison av., Morristown(14)
Holder, Lester, 1750 Walker av., Union (7)
Holderith, Albert E., 14 Yorktown ter.,Livingston(7)
Holland, John W., 4 S. Haverford av.,Margate C.(1)
Holland, Moses H., 2412 Palisade av.,Weehawken(9)
Holland, Reuben J., 1026 Chandler av., Linden (20)
Hollingsworth, H. Hale, 86 First st., Clifton (16)
Hollinshed, Beulah S., 600 Benson st., Camden (4)
Hollinshed, Ralph K., Parkview Apts.,Collingsw'd(4)
Hollywood, James L., 219 Danforth av., Jer. City (9)
Holman, Francis W., 123 Broad st., Keyport (13)
Holmes, George J., 17 Elizabeth av., Newark (7)
Holmes, Grace A., 1077 E. Jersey st., Elizabeth (20)
Holmes, H. David, 15 N. Indiana av.,Atlantic City(1)
Holmes, Thomas J. E., 151 Fair st., Paterson (16)
Holoman, M. Browne, 1 N. Haverford av.,Marg'e(1)
Holster, Stephen G., 951 Madison av., Paterson (16)
Holt, Evelyn, 261 Springfield av., Summit (20)
Holt, Herman H., 576 Broadway, Paterson (16)
Holters, Otto R., 1002 Emory st., Asbury Park (13)
Holtz, Harry M., 299 Clinton av., Newark (7)
Holtzman, Michael, 734 N. Broad st., Elizabeth (20)
Honig, Charles, 24 High st., Butler (16)
Hoops, Harold J., 25 Woodland Pk. dr., Tenafly (2)
Hooton, Thomas C., 31 Trinity pl., Montclair (7)
Hopper, Guy R., 401 Lenox av., Westfield (20)
Hopper, John B., E. Main st., Mendham (14)
Hopping, John S., River rd., Hanover (14)
Hopping, Richard A., 15 Washington st., Newark(7)
Horan, Austin J., 211 High st., Mt. Holly (3)
Horhovitz, George I., 324 S. Broad st., Trenton (11)
Horland, Aaron H., 129 Chancellor av., Newark (7)
Horn, Harry, 622 Stuyvesant av., Irvington (7)
Horn, Max, 850 S. 11th st., Newark (7)
Hornberger, J. Howard, 4th & Main sts.,Roebling(3)
Hornick, Emil E., 50 Lookout rd., Mountain L. (14)
Hornstine, Harry H., 4004 Pacific av., Wildwood (5)
Horoschak, Anne, 974 Park av., Plainfield (20)
Horowitz, Alexander S., 4614 Boulevard, Union C. (9)
Horowitz, Herman J., 872 Broad av., Ridgefield (2)
Horowitz, Leo, 3644 Boulevard, Jersey City (9)
Horre, George W. H., 203 W. Jersey st.,Elizabeth(20)
Hosay, John, 243A Second st., Jersey City (9)
Hosp, Paul H., 842 S. 12th st., Newark (7)
Howell, E. Gaylord, 120 New st., N. Brunswick (12)
Howeth, John L., 14 Duncan av., Jersey City (9)
Howland, Jonathan, 2 S.Stanworth dr.,Princeton(11)
Howley, Barth, Jr., 116 Livingston av.,N.Br'sw'k(12)
Hubach, Maximilian F.,Jr.,307M'tgom'y st.,Bl'mf'd(7)
Hubbard, Robert Y., Fernwood Lodge, Hewitt (7)
Huber, William H., 587 Prospect st., Maplewood (7)
Huberman, John, 853 S. 12th st., Newark (7)
Huberman, Victor, 853 S. 12th st., Newark (7)
Hubert, Antonio O., 131 E. Main st., Rockaway (14)
Hudson, Howard S., 825 Wesley av., Ocean City (5)
Hughes, A. Joseph, 3rd & Cooper sts., Camden (4)
Hughes, Frank J., 429 Cooper st., Camden (4)
Hughes, Harold F., 290 Ocean st., Cape May (5)
Hughes, J. Vernon, P. O. Box 454, Passaic (16)
Hughes, Joseph F., 16 N. Broad st., Woodbury (8)
Hughes, Lee W., 965 Broad st., Newark (7)
Hughes, Rupert S., Jr., 58 N. Warren st.,Woodb'y(8)
Hughes, Samuel B., 246 E. Pine av., Wildwood (5)
Hughes, Thomas E., 227 Cooper st., Camden (4)
Hulett,Albert G., 20 Hawthorne av., E. Orange (7)
Hull, Donald B., 88 W. Ridgewood av., Ridgewood(2)
Hummel, Ernest G., 414 Cooper st., Camden (4)
Hummel, Frederick W., 606 F st., Belmar (13)
Hummel, Lee C., 109 W. Broadway, Salem (17)
Humphrey, Hubert G., 430 Downer st.,Westfield(20)
Humphries, Robert E., 637 Central av., E. Orange(7)
Hunt, Melvin M., 140 Jackson st., South River (12)

Hunter, Floyd D., 3620 Nott'gh'm way,Ham't'n S.(11)
Hunter, Harold H., 114 W. Broad st., Paulsboro (8)
Hunziker, George P., 435 Warw'k av.,W.Englew'd(2)
Hurewitz, Benjamin, 0-95 Midland av.,Fair Lawn(16)
Hurff, J. Wallace, 671 Broad st., Newark (7)
Hurtado, Edward, 155 Chestnut av., Metuchen (12)
Huss, Louis, 1800 Boulevard, Union City (9)
Hussong, Wallace B., 1009 Wilson bldg.,Camden(4)
Husted, Gerald W., 803 Station av., Haddon Hts. (4)
Hutcheson, Robert B., 215 Delaware st., Woodb'y(8)
Hutchinson, George F., Yardville av.,HamiltonS.(11)
Hutchinson, Harry F., 701 Grove st., Pt.Pleasant(13)
Hutner, Cyril I., 134 Grove av., Woodbridge (12)
Hutton, Frederick T., 717 Watchung av.,Plainf'd(20)
Hyer, Godfrey S., 199 W. High st., Somerville (18)
Hyland, Michael, 197 Kearny av., Kearny (7)
Hyman, Charles, 2807 Pacific av., Atlantic City (1)
Hymes, Ben, 66 Baldwin av., Newark (7)

ASSOCIATE MEMBERS

Hain, Katharine H., 71 Myrtle av., Montclair (7)
Hardy, G. Robert, 93 Bayard st., N. Brunswick (12)
Hawke, Edward K., N. J. State Hospital,Trenton(11)
Hennessy, John, 500 Market st., Paterson (16)
Hofstra, Peter C., 149 Haledon av., Paterson (16)
Hutchinson, Wm. M.,1457 Nott'gh'm W., Trent'n(11)

I

ACTIVE MEMBERS

Ianacone, John A., 310 Fifth av., Paterson (16)
Iandoli, John, 227 Washington av., Westwood (2)
Iannone, Angelo B., 659 Park av., East Orange (7)
Iatesta, Matthew, 60 Northfield av., W. Orange (7)
Ill, Herbert M., 42 Woodland av., Glen Ridge (7)
Imbleau, Joseph E. L., 2106 Morris av., Union (20)
Imhoff, John G., 913 Summit av., Jersey City (9)
Imhoff, Robert E., 527 Penn st., Camden (4)
Inge, Hutchins F., 221 S. Orange av., Newark (7)
Ingram, Aldean S., 505 E. Broad st., Westfield (20)
Insabella, John, 317 S. Orange av., Newark (7)
Insolera, John A., 388 Park av., Paterson (16)
Introcaso, Dominick A., 45 Crescent av., Jer. City(9)
Iraggi, James V., 53 Passaic av., Passaic (16)
Irmisch, George W., 740 W. State st., Trenton (11)
Ironside, Paul A., 144 North dr., Haddonfield (4)
Irvin, Robert S., Union st., Manahawkin (15)
Irwin, Francis T., 51 Forest av., Caldwell (7)
Irwin, James R., 1402 Muirlands dr.,LaJolla,Calif.(7)
Irwin, John H., 242 Engle st., Englewood (2)
Irwin, Robert C., 541 Page av., Lyndhurst (2)
Isaac, Benoit C., 83 Central av., Orange (7)
Isen, Paul J., 600 Third av., Bradley Beach (13)
Israel, Joseph, 252 Washington av., Belleville (7)
Israeloff, Howard H., 1038 Clinton av., Irvington (7)
Ittleman, William S.,307 N.Wash'gt'n av.,D'nel'n(12)
Ivey, Evelyn P., 3 Community pl., Morristown (14)
Ivins, William C., 455 W. State st., Trenton (11)
Ivory, Harry S., 607 Forman av., Pt. Pleasant (15)
Izenberg, David, 555 E. 29th st., Paterson (16)

ASSOCIATE MEMBER

Ibranyi, Gustav L., 413 Roseville av., Newark (7)

J

ACTIVE MEMBERS

Jack, H. Wesley, 538 Cooper st., Camden (4)
Jackson, Charles H., 1250 Park blvd., Camden (4)
Jackson, George H., 100 Elmwood av., Union (7)
Jacobitti, Edmund E., 491 Maywood av., Mayw'd (2)
Jacobs, Alan L., 1243 Stuyvesant av., Union (20)
Jacobs, Benjamin, 1612 Clinton pl., Hillside (7)
Jacobs, William, 1032 Stuyvesant av., Irvington (7)
Jacobson,Benjamin D.,187Liv'gst'n av.,N.Br'sw'k(12)
Jacobson, J. Joseph, 1616 Pacific av., Atl. City (1)
Jacobson, Murray B., 137 Market st., P. Amboy (12)
Jaeckle, Charles E., 136 Evergreen pl., E. Orange(7)
Jaffe, Benjamin, 566 Bergen av., Jersey City (9)
Jaffe, Gorman, 310 Third st., Lakewood (15)
Jaffe, Herman M., 2600 Broadway, Jersey City (9)
Jaffe, Hyman, 149 Broadway, Passaic (16)
Jaffin, Abraham E., 41 Emory st., Jersey City (9)
Jahn, Albert G., 657 Main av., Passaic (16)
James, Bart M., 15 Washington st., Newark (7)
James, J. Thomas, 45 Vanderventer av.,Princet'n(11)
Jamison, William F., 601 Grand av., Asbury Pk.(13)
Jani, Frank F., 297 Lexington av., Passaic (16)
Jaques, J. Eugenia, 74 Waverly st., Jersey City (9)
Jarecki, Max M., 905 Bergh st., Asbury Park (13)
Jarvis, Daniel G., 31 Lincoln Park, Newark (7)
Jasionowski, Edward, 53 Main st., Sayreville (12)
Jaslow, Seymour P., 150 Godwin av., Wyckoff (2)
Jaso, James V., 710 Varsity rd., South Orange (7)
Jaspan, Samuel C., 820 Division st., Trenton (11)
Jedel, Meyer, 125 Fourth st., Newark (7)
Jehl, Joseph R., 59 Harding av., Clifton (16)
Jehl, Wilbur F., Essex Co. Sanatorium, Verona (7)
Jenkins, Arthur M., 616 Harrison st., Frencht'n(10)
Jenkins, R. Jewett, 683 High st., Newark (7)
Jennings, Robert E., 117 Washington st.,E.Orange(7)
Jentz, John H. 63 Sherman pl., Jersey City (9)
Joelson, Dora, 485 Park av., Paterson (16)
Joelson, Morris S., 584 Broadway, Paterson (16)
Joffe, Philip M., 556 E. 28th st., Paterson (16)
Joffe, Sidney H., 556 E. 28th st., Paterson (16)
Johnsen, Sigurd W., 149 Prospect st., Passaic (16)

Johnson, Archie W., 169 Claremont av., Jer. City(9)
Johnson, Ernest E., 214 Lexington av., Passaic (16)
Johnson, G. Leonard, 390 Booth av., Englewood (2)
Johnson, George F., Branchville (19)
Johnson, Harold F., 147 E. Seventh st.,Plainfield(20)
Johnson, Herbert F., 429 Cooper st., Camden (4)
Johnson, John F., 926 W. State st., Trenton (11)
Johnson, Robert A., 68 Roseville av., Newark (7)
Johnson, V. Earl, 101 S. Indiana av., Atlantic City(1)
Johnson, Winton H., 210 Main st., Hackensack (2)
Johnston, Julian F., 21 Van Doren av., Chatham(14)
Jonas, August, 287 E. Broadway, Salem (17)
Jones, Clement M., 454 Boulevard, Bayonne (9)
Jones, Helen E., 601 Grand av., Asbury Park (13)
Jones, Herbert E., 6 Hillside rd., Elizabeth (20)
Jones, John C., 805 Princeton av., Camden (4)
Jones, Lewis H., 139 E. Grant av., Roselle Park (20)
Jones, Rhys, 36 Hawthorne pl., Montclair (7)
Jones, William F., 21 East High st., Somerville (18)
Jonitz, Robert, 153 S. Grove st., East Orange (7)
Jordan, Joseph C., 238 E. Main st., Manasquan (13)
Joseph, Benjamin M., 2771 Boulevard, Jersey City(9)
Joseph, Morris, 271 Lexington av., Passaic (16)
Joseph, Solomon, 877 Queen Anne rd., Teaneck (2)
Judd, Joseph, Jr., 3 Palisade rd., Elizabeth (20)
Judge, John F., 577 S. Orange av., S. Orange (7)
Judge, Thomas V., Jr., Mem. Hosp., Syracuse,N.Y.(7)
Judson, G. Vernon, Jr., 722 Redman av., Had'nf'd(4)
Judy, Kenneth H., 2741 Boulevard, Jersey City (9)
Jukofsky, Isidore D., 335 Main st., Ridgef'd Pk. (2)
Jurewicz, Stanley T., 290 17th av., Paterson (16)
Just, Francis, 564 High st., Newark (7)
Justin, Arthur W., 41 Fulton st., Weehawken (9)

ASSOCIATE MEMBERS

Jacobus, Raymond E., 601 Grand av.,Asbury Pk.(13)
Johnkins, Roland, 756 Stuyvesant av., Irvington (7)
Jones, David W., 102 Broadway, Paterson (16)

K

ACTIVE MEMBERS

Kaderabek, Erwin J., 144 Harrison st., E. Orange(7)
Kadisch, Ernst L., 120 Second av., Westwood (2)
Kahn, Leo, 32 States av., Atlantic City (1)
Kahrs-Dreyfors, Madeline, N.J.St.Hosp.,Marlb'ro(13)
Kain, Thomas M., 403 Cooper st., Camden (4)
Kain, Thomas M., Jr., 403 Cooper st., Camden (4)
Kainer, Herbert, 4411 Boulevard, North Bergen (9)
Kakascik, Emil J., 206 Palisade av., Garfield (2)
Kalb, S. William, 416 Clinton pl., Newark (7)
Kaletkowski, Marion F., 4 Englewood rd.,Clifton(16)
Kallen, Arnold M., 21 Leslie st., Newark (7)
Kalter, George E., 640 Prospect st., Maplewood (7)
Kaman, Samuel L., 1616 Pacific av., Atl. City (1)
Kandle, Roscoe P., 20 Edgemere av., Trenton (11)
Kandra, Paul H., 153 Mountain av., Westfield (20)
Kanengiser, Clifford H., 26 Gifford av., Jer. City (9)
Kaney, Emil M., 74 Clinton av., Newark (7)
Kant, Emanuel R., 240 High st., Perth Amboy (12)
Kaplan, Elliot L., 251 Meeker av., Newark (7)
Kaplan, Harry, 186 W. State st., Trenton (11)
Kaplan, Henry L., 17 Weequahic av., Newark (7)
Kaplan, Herman B., 324 44th st., Union City (9)
Kaplan, Samuel D., 615 N. Broad st., Elizabeth (20)
Kaplin, Sidney, 285 Lexington av., Passaic (16)
Kapp, Carl G., 440 Westminster av., Elizabeth(20)
Karel, Jack R., 407 Jersey av., Elizabeth (20)
Karney, Francis, 416 Center st., Garwood (20)
Karshmer, Ernest E., 420 Wood av., N., Linden (20)
Karshmer, Nathan, 92 Carroll pl., N. Brunswick(12)
Kassel, Mortimer H., 34 Elmwood ct., E.Paters'n(16)
Kassow, Philip B., North Boulevard, Alpha (21)
Kastler, Franz, 54 Ames av., Rutherford (2)
Katz, Harry, 494 Park av., Paterson (16)
Katz, Jacob D., 38 Bentley av., Jersey City (9)
Katz, Sidney, 8116 Boulevard, North Bergen (9)
Katz, Theodore, 540 S. Wood av., Linden (20)
Katzin, Eugene M., 50 Baldwin av., Newark (7)
Kauder, Warren G., 201 Lyons av., Newark (7)
Kauffmann, Louis J., 232 N. Second st., Millville (6)
Kaufman, Jerome G., 299 Clinton av., Newark (7)
Kavanaugh, Daniel E., 566 Mt. Prosp't-av.,New'k(7)
Kawalek, Roman, 592 Park av., East Orange (7)
Kay, Albert E., 5 W. Chestnut av., Merchantville(4)
Kaycoff, Aaron J., 326 S. Broad st., Elizabeth (20)
Kaye, Bernard, 245 Bath av., Long Branch (13)
Kazmann, Harold A., 601 Grand av., Asbury Pk.(13)
Kearney, Hugh, 23 E. Verona av., Pleasantville (1)
Kearney, Edward P. J.,83 S.Fullert'n av.,Montcl'r(7)
Kearney, John F., 238 Hilton av., Maplewood (7)
Keating, Charles A., 177 Ellison st., Paterson (16)
Keating, Joseph M., 657 Main av., Passaic (16)
Keats, Sidney, 31 Lincoln Park, Newark (7)
Keeney, Cadwell B., 137 Summit av., Summit (20)
Kehler, James G., Jr., Underwood Hosp., Woodb'y(8)
Keil, Sigmund S., 628 N. Wood av., Linden (20)
Keim, William F., Jr., 15 Washington st.,Newark(7)
Keir, Floyd E., 308 Engle st., Englewood (2)
Keith, Theodore R., 159 Passaic av., Passaic (16)
Kelemen, Edward, 875 Broadway, Long Branch (13)
Kelemen, Nichols M., 315 Central av.,EastNewark(7)
Keller, Earl B., Jr., 604 Wt. Horse Pk., Oaklyn (4)
Keller, Michael L., 673 E. 27th st., Paterson (16)
Kelley, Ray H., 38 Wyckoff av., Midland Park (16)
Kelly, Bernard S., 1954 Boulevard, Jersey City (9)
Kelly, Frank, 11 N. Johnson Blvd., Gloucester (4)
Kelly, J. Paul, 30 Ridgedale av., Morristown (14)
Kelly, Leo J., 216 N. Warren st., Trenton (11)
Kemeny, George, 39 Third st., Elizabeth (20)
Kemeny, Imre, 48 Pulaski av., Carteret (12)
Kemezis, Vitas, 301 Harrington av., Closter (2)
Kemp, Norval F., 87 Sherman pl., Jersey City (9)
Kempe, George, 963 Caldwell av., Union (7)
Kennedy, A. Andrew, 123 Hadley av., Clifton (16)
Kennedy, Eugene T., 413Wanaque av.,Pompt'nL.(16)
Kennedy, George R., 517 Cooper st., Camden (4)
Kennedy, John, N. Main st., Cedarville (6)
Kennedy, John N., 831 Madison av., Plainfield (20)
Kennedy, Joseph F., 347 Valley rd., Clifton (16)
Kennedy, Paul A., 147 Tenafly rd., Englewood (2)
Kennedy, Wm. M., 413 N. Main st.,Morresv'le,N.C.(7)
Kenny, Howard W., Army (7)
Kenny, James, 18 Fairway dr., West Orange (7)
Kent, Donald F., 396 Main st., Chatham (14)
Kent, Louis R., 2431 Webb av., Univ. Hts.,N.Y.C.(20)
Kerdasha, Richard F., 937 Monmouth st.,Glouc't'r(4)
Kern, E. Clarence, 45 Park st., Montclair (7)
Kern, Meyer J., 144 Clinton av., Newark (7)
Kerns, Francis J., 526 W. Market st., Newark (7)

Kerr, Andrew D., Jr., 19 Lincoln av., Clifton (16)
Kertis, Eugene R., 272 E. Second av., Roselle (20)
Kesselman, Samuel R., 107 Clinton av., Newark (7)
Kessler, Edward I., 1 Wash'gton av.,Morristown(14)
Kessler, Henry B., 40 Clinton pl., Newark (7)
Kessler, Henry H., 53 Lincoln Park., Newark (7)
Kessler, Morris, 626 Schuyler av., Arlington (7)
Keyser, David, 1518 Baird av., Camden (4)
Keyssar, Alexander, 18 Isabella av., Newark (7)
Kidd, Ruth W., 1199 Morris av., Union (20)
Kiely, Eugene M., 800 Hudson st., Hoboken (9)
Kiessling, Charles E., 213 Washington st.,Newark(7)
Kieswetter, Dayton T., 75 Prospect st., E. Orange(7)
Kiley, John E., 94 Park st., Montclair (7)
Kilts, Winfield S., 966 Garrison av., Teaneck (2)
Kim, Gay B., 703 Main st., Paterson (16)
Kimche, Irwin, 37 Rawley pl., Millburn (7)
Kimler, William D., 400 Collings av., Collingsw'd (4)
Kimmel, Charles, 488 Broad st., Bloomfield (7)
Kimmel, M. Leonard, 3342 Boulevard, Jersey City (9)
Kinczel, John A., 971 S. Broad st., Trenton (11)
King, Alden P., 400 W. Blackwell st., Dover (14)
Kingslow, George L., 346 First st., Hackensack (2)
Kinley, John W., 111 Clinton av., Newark (7)
Kinney, A. Girton, 609 Clinton av., Haddonfield (4)
Kirkman, Leroy G., 176 Roseville av., Newark (7)
Kirkwood, Allan S., 53 Union st., Montclair (7)
Kirschner, Martin I., Vernon (19)
Kissinger, Donald J., 315 Engle st., Tenafly (2)
Klapper, Lester L., 967 Park av., Plainfield (20)
Klarich, Philip, 512 Broadway, Camden (4)
Kleiber, Estelle E.,131 Livingston av.,N.Br'nsw'k(12)
Klein, Alfred, 6-25 Plaza rd., Fair Lawn (16)
Klein, Andrew J. V., 94 Hawthorne av., E. Orange(7)
Klein, Edward C., Jr., 6 S. Kingman rd.,S. Orange(7)
Klein, Edward F., 136 Market st., Perth Amboy (12)
Klein, Julius, 2105 Palisade av., Union City (9)
Klein, Michael, 1540 Spr.Valley dr.,Hunt'gt'n,W.V.(7)
Klein, William, 85 Bayard st., New Brunswick (12)
Kleiner, Samuel, 162 Hamilton av., Paterson (16)
Kleinman, Maurice, 101 Clinton av., Newark (7)
Kleinmann, Eberhart H., 560 Broadway,Paterson(16)
Klempner, Paul, 637 Greenwood av., Trenton (11)
Klenk, Joseph P., 328 Belleville av., Bloomfield (7)
Kler, Joseph H., 151 Livingston av., N. Brunsw'k(12)
Kley, Edward, 32 Lexington dr., Livingston (7)
Kline, George L., 519 Mt. Prospect av., Newark (7)
Kline, Herman, 2643 Pacific av., Atlantic City (1)
Kline, Joseph J., 733 Hamilton av., Trenton (11)
Kline, Oram R., 514 Cooper st., Camden (4)
Klinger, John S., 1452 Mt. Ephraim av.,Camden (4)
Kloby, John J., 562 Bayway, Elizabeth (20)
Klompus, Irving, 301 E. High st., Bound Brook (18)
Klosk, Emanuel, 324 Radel ter., South Orange (7)
Klosterman, Julius A., 335 River rd., Bogota (2)
Klostermyer, Louis L., Mount'ns'e Hosp., M'ntcl'r(7)
Kloth, Edward W., 220 Palisade av., Englewood (2)
Kluft, Jack M., 280 Hobart st., Perth Amboy (12)
Klughaupt, Dorothy K., 257 Boulevard, Passaic (16)
Knapp, Richard E., 25 Hudson st., Hackensack (2)
Knapp, Victor, 505 Second av., Asbury Park (13)
Knauer, George, 930 Elizabeth av., Elizabeth (20)
Knight, William T., 210 Main st., Hackensack (2)
Knowles, George M., 403 Prospect av., Hackens'k(2)
Knowles, James S., 318 N. Second st., Millville (6)
Knox, Charles A., 138 Bergen av., Ridgef'd Pk. (2)
Knox, Harriet L., 390 Union st., Hackensack (2)
Kobes, John J., 138 Kearny av., Kearny (7)
Koch, James, 776 S. 19th st., Newark (7)
Koch, William, 601 Grand av., Asbury Park (13)
Koeck, George P., 161 Roseville av., Newark (7)
Koelsch, Fred'k J. E., 14 Kirkp'tr'k st., N.Br'sw'k(12)
Koenig, Bertram, 282 Broadway, Paterson (16)
Koenig, Robert E., Sedgewick st., Jamesburg (12)
Koerber, George, 136 Prospect st., Passaic (16)
Kohn, Joseph J., 143 E. State st., Trenton (11)
Kohn, Leo, 86 Park pl., South Orange (7)
Kohut, George J., 436 Amboy av., Perth Amboy (12)
Kolb, John M., 1611 Boulevard, North Bergen (9)
Kollmar, Robert, 82A2 Woodland rd., Short Hills (7)
Kolodin, Abraham, 185 Broad st., Bloomfield (7)
Konzelman, Henry J., 65 King st., Hillside (20)
Konzelmann, Frank W., 16 W.Bolton av.,Absecon(1)
Kook, Sol, 54 Grand pl., Arlington (9)
Kooperstein, Samuel I., 191 Palisade av., Jer. City(9)
Koplin, Nathaniel H., 142 W. State st., Trenton (11)
Koralek, Adolph H., 31 Lincoln Park, Newark (7)
Korbonits, Charles W., Army (13)
Korman, Arnold, 560 E. 28th st., Paterson (16)
Kornfeld, Werner, 135 S. Munn av., East Orange (7)
Kosminsky, Louis, 321 60th st., West New York (9)
Kossmann, Walter J., Main st., Long Valley (14)
Kosterlitz, Henry H., 640 Stuyvesant av.,Irv'gton(7)
Kovaleski, Walter A., 77 Market st., Passaic (16)
Kovin, Abraham, 123 Lexington av., Passaic (16)
Kraemer, Louis B., 74 Baldwin av., Newark (7)
Kraemer, Samuel H., 309 Baldwin av.,Jersey City(9)
Krafchik, Louis L., 158 Livingston av.,N.Br'sw'k(12)
Kraissl, Cornel's J., 230 Kind'km'k rd., N. H'k'ns'k(2)
Krakower, Alvin H., 666 Broadway, Paterson (16)
Kralik, Joseph J., 555 Market st., Newark (7)
Kramer, Bernard M., 254 State st., Perth Amboy(12)
Kramer, Douglas W., 1019 Park av., Plainfield (20)
Kramer, Samuel E., 254 State st., Perth Amboy (12)
Kratka, William H., 188 N. Pearl st., Bridgeton (6)
Krauss, Fletcher I., 407 Main st., Chatham (14)
Krausz, Emery, 577 S. Main st., Phillipsburg (21)
Krausz, Kathryn, 577 S. Main st., Phillipsburg (21)
Kraut, Arthur M., 2729 Boulevard, Jersey City (9)
Krechmer, Abraham, 400 Pacific av.,AtlanticCity(1)
Kremer, Leonard, 445 15th av., Paterson (16)
Kren, Frank, 917 W. State st., Trenton (11)
Kresch, Philip, 86 W. 34th st., Bayonne (9)
Kreutz, Paul J., 363 Union av., Elizabeth (20)
Kristal, John, 292 Main st., Hackensack (2)
Kritzler, Robert A., 88 Ridgewood av.,Ridgewood(2)
Krohn, Marc, Campbell av., Belford (13)
Krone, William F., 31 Lincoln Park, Newark (7)
Krudener, Robert D., 872 Broad av., Ridgefield (2)
Krug, Alfred J., 1460 Clinton av., Irvington (7)
Kruger, William, 31 Lincoln Park, Newark (7)
Krugman, Benjamin M., 438 Park av., Paterson (16)
Krull, Bernard, 811 Queen Anne rd., Teaneck (2)
Kuchlewski, Edward J., 224 E. Jersey st.,Eliz'b'h(20)
Kuder, Joseph M., 104 Garden st., Mt. Holly (3)
Kuhlmann, Alvin E., 527 37th st., Union City (9)
Kuhn, Richard E., Army (16)
Kuite, George B., 435 Speedwell av., Morris Pls.(14)
Kulick, Morton, 731 14th av., Paterson (16)
Kummel, Max, 31 Lincoln Park, Newark (7)
Kump, Albert B., 39 Lake st., Bridgeton (6)
Kun, Bertram, 135 Belmont av., Jersey City (9)
Kunderman, Philip J., 216 Clevel'd av.,Highl'd P.(12)
Kunz, Harold G., 64 Hawthorne pl., Montclair (7)
Kuperman, Henry L., 79 Baldwin av., Newark (7)
Kushner, Alexander, 208 W. Milton av., Rahway(20)
Kustrup, John F., 1418 S. Broad st., Trenton (11)
Kutner, Charles, 211 N. Fifth st., Camden (4)
Kyhos, Emma D., 314 Hillside av., Nutley (7)
Kyle, Ernest L., 205 W. Ninth st., Plainfield (20)

ASSOCIATE MEMBERS

Kaney, Marie, 25 Holland rd., South Orange (7)
Katz, Emanuel, 9 Kirkpatrick st., N. Brunswick(12)
Katz, Michael M., 197 So.Wash'gton av.,Bergenf'd(2)
Knitzer, Carl, 141 Central av., Montclair (7)
Kuhn, William, 116 Livingston av., N.Brunsw'k(12)

L

ACTIVE MEMBERS

Laauwe, Harold W., 500 Market st., Paterson (16)
LaBarba, Peter J., 163 Washington pl.,Hasbr'kH.(2)
Labow, Joseph J., 757 N. Broad st., Elizabeth (20)
Ladas, George, 305 Cherry st., Elizabeth (7)
Lafferty, Elton B., 69 Orange av., Irvington (7)
Lakiszak, Roman T., 162 Harrison av., Jer. City (9)
Lamberto, Vito, A., 422 Stuyvesant av.,Lyndhurst(2)
Lamy, Anthony W., 560 Newark av., Elizabeth (20)
Lance, Elton W., 125 W. Milton av., Rahway (20)
Landaw, Louis, 631 E. 26th st., Paterson (16)
Landes, Edwin W., Stillwater (19)
Landesman, William, 187 Kearny av., Kearny (7)
Landis, Harry P., Jr., 901 Columbia av., Palmyra(3)
Landshof, Charles A., 50 Glenwood av., Jer City (9)
Lane, Edgar W., 46 Main st., Bloomsbury (10)
Lane, George F., II, 604 Park av., Plainfield (20)
Lane, Milton, 900 Stuyvesant av., Union (20)
Lane, Thomas F., 145 Garrison av., Jersey City (9)
Lang, Joseph, 111 Market st., Perth Amboy (12)
Lang, Joseph T., 115 Main st., South River (12)
Lang, Louis, 947 E. Jersey st., Elizabeth (20)
Lang, Paul, 32 W. Commerce st., Bridgeton (6)
Lang, Richard E., 463 Passaic av., Passaic (16)
Lang, Richard W., Army (20)
Langdon, Benjamin B.,450 Summit av.,Hackens'k(2)
Lange, Louis C., 50 Clifton ter., Weehawken (9)
Langgaard, Charles, 14 Wardell rd., Livingston (7)
Langston, Junius T., 521 E. Second st., Plainsf'd(20)
Lapin, Louis P., 15 Crosswicks st., Bordentown (11)
Largay, Arthur O., 937 Avenue C, Bayonne (9)
Larkey, Irving G., 95 Shanley av., Newark (7)
La Rosa, Frank J., 316 N. Broadway, Pitman (8)
Larossa, Ernest A., 561 Benson st., Camden (4)
Larrabee, Callie H., 10 Irving pl., Summit (20)
Larson, Henry M., 35 Franklin st., Morristown (14)
Larsson, Evert A., N. J. State Hosp., Trenton (11)
Lathrop, Frederic W., 909 Park av., Plainfield (20)
Lathrope, George H., 20 Elm st., Morristown (14)
Latona, Joseph A., 78 Main st., Lodi (2)
Laudig, Guy H., 361 Speedwell av.,Morris Plains(14)
Laufenberg, Joseph W., 1544 S.Broad st.,Trent'n(11)
Laurusonis, John, 319 W. Broad st., Gibbstown (8)
Lavine, Barney D., 630 N. Clinton av., Trenton (11)
Lavine, Samuel C., 502 Georges rd., N. Br'nsw'k(12)
Lavine, Sidney B., 144 W. State st., Trenton (11)
Law, Harrison E., 283 Summit av., Hackensack (2)
Lawless, Edward T.,105 Clarewill av.,Up.Montcl'r(16)
Lawner, Ethel G., 25 Kensington av., Jer City (9)
Lawrence, Arthur C., 415 E. 39th st., Paterson (16)
Lawrence, Elias D., 499 Park av., Paterson (16)
Lawsing, G. Conde, 443 66th st., West New York (9)
Lazow, S. Manlius, 199 Main st., Matawan (12)
Leach, John E., 274 Carroll st., Paterson (16)
Leach, Morton W., Army (1)
Leaman, Granville M., 182 N. Grove st., E.Orange(7)
Leaver, Morris H., Quakertown (10)
LeBel, Louis J. B., 165 Grant av., Nutley (7)
Leber, Otto H., 63 Myrtle av., Montclair (7)
Ledden, Lewis J., 1104 Hamilton av., Trenton (11)
Lee, Benjamin F.,Broadway Stevens Bldg.,C'md'n(4)
Lee, John J., 309 Park av., Orange (7)
Lee, Robert E., 2 Great Oak dr., Short Hills (7)
Lee, William A., 2465 Boulevard, Jersey City (9)
Leeds, Leonard W., 701 Stuyvesant av.,Irvington(7)
Leevy, Carroll M., 543 Bergen av., Jersey City (9)
LeFavor, Dean H., 619 Morgan av., Palmyra (3)
Leff, Abraham, 98 Hackensack st., Wood-Ridge (7)
Leff, Charles O., 5 Elm ct., South Orange (7)
Leff, William A., 299 Clinton av., Newark (7)
Lefkowitz, Jacob H., 445 64th st., West New York(9)
Legato, Samuel F., 432 Palisade av., Cliffside Pk. (2)
Legg, George E., 292 Broadway, Paterson (16)
Leggett, Lindley H., Jr., 330 E.Broad st.,Westf'd(20)
Leggett, Thomas H., Jr., 706 Park av., Plainfield(20)
Lehmacher, Frank, 16 Central av., Lakewood (15)
Lehman, David J., Jr., 192 Roseville av., Newark (7)
Lehmann, Otto, 138 Bath av., Long Branch (13)
Leir, J. Krevin 2787 Boulevard, Jersey City (9)
Lemay, Albert T., 532 14th av., Paterson (16)
Lemkin, Samuel, 71 Pomona av., Newark (7)
Lemmerz, Willard H.,135 Hack'ns'k st.,Wood-R'ge(2)
Lempke, Richard J., 3 Armstrong av., Jer City (9)
Leon, Maurice J., 284 Bellevue av., U. Montclair (7)
Leonard, Bernard, 33 W. Union st., Burlington (3)
Leonard, Lothair L., 615 Asbury av., Asbury Pk.(13)
Leonard, Martha F., 55 N. 5th av., Highland Pk.(12)
Leone, Armando, 287 Doremus st., Glen Rock (16)
Leone, Peter P., 27 Princeton rd., Elizabeth (20)
Lepis A. Albert, 39 Bentley av., Jersey City (9)
Lepree, Joseph A., 371 Morris av., Elizabeth (20)
Lerman, Freder'k,2441Webb av.,Univ.Hts.,N.Y.C.(20)
Lerman, Irving, 1024 E. Jersey st., Elizabeth (20)
Lerman, Samuel, 1024 E. Jersey st., Elizabth (20)
Lesko, Stephen W., 234 Mt. Pleas't av.,Wallington(2)
Lettiere, Anthony J., 425 E. State st., Trenton (11)
Leuzzi, Darwin A., 2515 Palisade av., Union City (9)
Levendusky, Daniel E., 20 W.Main st.,Rockaw'y(14)
Levin, Jack, 95 W. Main st., Freehold (13)
Levin, Joseph, 831 S. 13th st., Newark (7)
Levin, Murray, 20 Callamore dr., West Orange (7)
Levine, Burton, 31 Lincoln Park, Newark (7)
Levine, David B., 647 Broadway, Paterson (16)
Levine, Edward P., 368 Clinton av., Newark (7)
Levine, G. Irving, 100 Bentley av., Jersey City (9)
Levine, Philip, 61 Lincoln Park, Newark (7)
Levine, Sidney C., 500 Market st., Paterson (16)
Levinsohn, Sandor A., 656 E. 29th st., Paterson (16)
Levinson, David M., 860 S. 12th st., Newark (7)
Levinson, Louis A., 43 S. Pierson rd., Maplewood (7)
Levinson, Reuben, 123 Market st., P. Amboy (12)
Levinstone, Bertram, 695 Clinton av., Newark (7)
Levison, William, 75 Lincoln Park, Newark (7)
Levitas, George M., 199 Fairview av., Westwood (2)
Levitas, Irving M., 199 Fairview av., Westwood (2)
Levitsky, Edward, Army (20)
Levitt, Jesse N., 26 Clinton pl., Newark (7)
Levy, Abram, 1401 Plainfield av., S. Plainfield (18)
Levy, Anna L., 32 S. Munn av., East Orange (7)
Levy, David, 586 E. 29th st., Paterson (16)
Levy, Herman, 158 Lexington av., Passaic (16)
Levy, Irvin, 222 W. State st., Trenton (11)
Levy, Jack D., 191 Union st., Hackensack (2)
Lewandowski, Edmund E., 2 Smalley ter.,Irv'gt'n(7)
Lewin, Leo, Howard Blvd., Mt. Arlington (14)
Lewis, Albert, 41 Retford av., Cranford (20)
Lewis, Alexander, 113 E. Milton av., Rahway (20)
Lewis, Alice B., 1 Gilbert rd., Hohokus (2)
Lewis, Arthur J., 1123 Park av., Hoboken (9)
Lewis, Collins E., 219 Seaman st., New Brunsw'k(12)
Lewis, G. Rae, 458 Washington av., Belleville (7)
Lewis, Jacob, 43 Court st., Freehold (13)
Lewis, John F., Jr., 1201 Park av., Hoboken (9)
Lewis, Robert L.,Jr.,636 Westminster av.,Eliz'b'h(20)
Lewis, Roger, Hoffmann-La Roche,Inc.,Nutley(7)
Lewis, Sanford M., 88 Chancellor av., Newark (7)
Liana, Stephen M., 456 Park av., Paterson (16)
Liberi, Ercole J., Navy (4)
Liccese, Emanuel, 84 Jefferson st., Newark (7)
Lichtenberg, Walter, 309 Kind'rk'm'k rd.,Westw'd(2)
Liddell, Raymond N., 45 Grant av., Somerville (18)
Lieb, Robert L., 61 Lincoln Park, Newark (7)
Lieb, Saul, 90 Treacy av., Newark (7)
Lieberman, David P.,597 Westmins'r av.,Elizab'h(20)
Lieberman, Milton L., 101 Pershing av.,RoselleP.(20)

Lief, Lawrence H., Gatzmer av., Jamesburg (12)
Light, Arthur B.,Lawenceville School,Lawr'cev'e(11)
Lilien, Bernard B., 1191 Clinton av., Irvington (7)
Lilien, Milton M., 152 Clark st., Hillside (20)
Lima, John G., 49 Park pl., Passaic (16)
Lin, Hazel A. C., 216 Bidwell av., Jersey City (9)
Linares, A. Carfi, 208 Market st., Paterson (16)
Lind, Zoltan H., 215 Livingston av., N. Brunsw'k(12)
Linden, Mortimer H.,45 Clendenny av.,JerseyCity(9)
Lintz, Sidney Z., 705 Kings Hwy., Swedesboro (8)
Linz, Curt, 135 Centre st., Nutley (7)
Lione, John G., 200 Beach st., Cranford (9)
Lipkin, Isadore, 157 W. Main st., Penns Grove (17)
Lippman, Nathan L., 504 Pacific av., Atl. City (1)
Lipshutz, Benjamin, 18 W. 22nd st., Bayonne (9)
Lipshutz, Charles, 820 Avenue C, Bayonne (9)
Lipson, Stanley, 1717 N. Wood av., Linden (20)
Lipstein, William, 845 Chancellor av., Irvington (7)
Lipton, Louis, 67 Passaic av., Passaic (16)
Little, Rufus R., Bergen Pines Hosp., Oradell (2)
Littwin, Charles, 950 Queen Anne rd., Teaneck (2)
Liva, Paul F., 280 Stuyvesant av., Lyndhurst (2)
Liva, Vinicio G., 280 Stuyvesant av., Lyndhurst (2)
Livengood, Baxter A., 64 Cooper st., Woodbury (8)
Livingston, Bernard, 30 Park av., Caldwell (7)
Livingston, Elias, 591 Stuyvesant av., Irvington (7)
Livingston, Paul, 299 Main st., East Orange (7)
Livingston, Sydney R., 650 W. Sev'th st.,Plainf'd(20)
Lloyd, Samuel J., 395 W. State st., Trenton (11)
Llull, Gabriel J., 266 Morris av., Springfield (20)
Lobban, Robert B., 61 Gifford av., Jersey City (9)
Lobsenz, Nathan P., 294 Broadway, Paterson (16)
LoBuono, Joseph, 228 60th st., West New York (9)
Locke, Henrik W., 243 W. Main st., Moorestown (4)
Loder, Horace B., 225 E. Commerce st., Bridgeton(6)
Loder, Joseph S., 924 S. 17th st., Newark (7)
Loeser, Lewis H., 188 Clinton av., Newark (7)
Lohman, Herman, 32 Johnson av., Newark (7)
Loizeaux, Edward C., 320 E. Seventh st., Plainf'd(20)
Loizeaux, Theodore, 212 E. Seventh st.,Plainfield(20)
Loman, Samuel G., 139 Jefferson av., Cresskill (2)
Lomauro, James R., 184 Lexington av., Passaic (16)
Lomax, Charles L., 417 W. Broad st., Westfield (20)
Lombardi, Frank L., 25 E. Clinton av.,Bergenfield(2)
Lombardo, Bartlo, 111 Wilson av., Newark (7)
London, Isabel M., 103 N. Fourth av., Highl'n P.(12)
London, Leslie, 120 Lexington av., Passaic (16)
London, Randolph A., 7615 Park av., N. Bergen (9)
London, William, 255 State st., Perth Amboy (12)
Londrigan, Joseph F., 832 Bloomfield st.,Hoboken(9)
Long, Elias E., 85 W. Front st., Red Bank (13)
Long, John F., 82 Grand pl., Arlington (7)
Long, Miles T., 2150 Boulevard, Jersey City (9)
Long, Pauline A., 57 Livingston av., N. Br'sw'k(12)
Longbothum, George M.,733Watch'g av.,Plainf'd(20)
Longnecker, John E., Jr., Sparta (19)
Longo, James J., 74 Ridge rd., N. Arlington (7)
Longsdorf, Harold E., 300 Bartram av., Mt. Holly(3)
Looloian, Mehran W., White House Station (10)
Loori, William A., 549 Pavonia av., Jersey City (9)
Lord, C. Donald, 76 W. Ridgewood av., Ridgew'd(2)
Lorentz, Emma B., 94 Grove st., Somerville (18)
Love, Elizabeth F., Jeanes Hosp., Phila., Pa. (3)
Lovell, John F., 1013 Clinton av., Irvington (7)
Lovett, Benj. F.,Jr.,20 Wayne Gard'ns,Collingsw'd(4)
Lovett, Irving K., 110 E. Front st., Red Bank (13)
Low, Donald B., 529 Broadway, Paterson (16)
Lowe, Louise, 248 State st., Hackensack (2)
Lowell, Milton E., 434 Summit av., Westfield (20)
Lowenstein, Aaron, 860 S. 11th st., Newark (7)
Lowenstein, Ernest C., 259 W.Milton av.,Rahw'y(20)
Lowenstein, Harry A., 96 Milford av., Newark (7)
Lowrey, James H., 79 Congress st., Newark (7)
Luban, Benjamin, 730 High st., Newark (7)
Luca, Frank, 552 Westwood av., Long Branch (13)
Luca, Mildred O., 552 Westwood av., L. Branch (13)
Lucas, Stanley L., 44 N. Kentucky av., Atl. City (1)
Lucas, W. Fred, 23 W. Broad st., Burlington (3)
Luce, Henry A., 40 N. Livingston av., Livingston(7)
Lucent, S. Bell, 2 First av., Little Falls (16)
Lucey, James J., 185 Market st., Perth Amboy (12)
Luczynski, Edward W., 726 Avenue C, Bayonne (9)
Luddecke, Hugh F., 40 Franklin st., Morristown (14)
Lufburrow, Charles B., 441 W.Front st.,Plainfi'd(20)
Luippold, Eugene J., Jr.,130 Fairv'w av.,Boont'n(14)
Luksteid, Casimir J., 326 Park av., Paterson (16)
Lundblad, Walter E., 75 Prospect st., E. Orange (7)
Luongo, Federico, 212 S. Centre st., Orange (7)
Luria, Sanford A., 249 Queen Anne rd., Bogota (2)
Lurie, Solomon, I., 21 Hillside av., Newark (7)
Lurie, Wolf, 379 Kearny av., Kearny (7)
Lushear, Frank H., Broad st., Branchville (19)
Lussier, Georges H., Brisbane Center, Farm'gd'e(13)
Lustig, Melvin, 1479 Compton ter., Hillside (7)
Lutz, Martin H., 127 W. Fifth av., Roselle (12)
Lutz, William M., 3 Southern Slope dr., Millburn(7)
Lyerly, James M., 815 Park av., Plainfield (20)
Lyght, Charles E., Merck & Co., Rahway (20)
Lynch, Albert E. O., 257 Orange rd., Montclair (7)
Lynch, Donald C., 885 Stuyvesant av., Trenton (11)
Lynch, Edward T., 748 Livingston rd., Elizabeth(20)
Lynch, James F., 1947 Boulevard, Jersey City (9)
Lynch, Maurice M., 46 Anderson st., Hackensack(2)
Lynch, Roland J., Mental Dis. Hosp., Secaucus (9)
Lynn, Irving I., 2760 Boulevard, Jersey City (9)
Lyon, Archibald, 111 Ridge rd., North Arlington (7)
Lyon, Earl C., 194 E. Commerce st., Bridgeton (6)
Lyons, James V., 333 Park av., Orange (7)
Lyons, Romola, 171 Meadowbrook rd.,Englewood(2)

ASSOCIATE MEMBERS

Lake, George, Pilgrim St. Hosp.,W.Brentw'd,N.Y.(7)
Landman, Milton E., 185 Lexington av., Passaic(16)
Lenihan, Thomas F., Army (16)
Lifschutz, Seymour, 195 Liv'gston av.,N.Br'sw'k(12)

M

ACTIVE MEMBERS

Maas, Max A., 329 Clinton av., Newark (7)
Mabee, John R., 24 Center av., Little Falls (16)
MacAlpine, Kenneth B.,500 ChewsLdg.rd.,Had'nf'd(4)
Macaluso, Dominic C., 452 Wash'gton av.,Bellev'e(7)
MacArt, J. Harold, 120 Prospect st.,South Orange(7)
MacArthur, Clymont, 219 Roseville av., Newark (7)
Macaulay, Francis A., 815 Elm av., Teaneck (2)
Macchia, Benjamin J., 358 Arlington av.,Jer.City(9)
MacDermid, Lynden E.,506 Farnsw'h av.,Bord't'n(11)
MacDonald, Edward O., 719 Locust st., RoselleP.(20)
MacGregor, Allan W., 379 Ellison st., Paterson (16)
MacGregor, Mary E.C.,242 Fairm'nt av.,Chath'm(14)
MacKellar, James M., 26 E. Clinton av., Tenafly (2)
MacKenzie, Robert A., 601 Grand av.,Asbury Pk.(13)

Mackes, Claude B., 48 N. Main st., Woodstown (17)
Mackin, John J., 596 Bergen av., Jersey City (9)
Mackler, Meyer E., 627 E. 24th st., Paterson (16)
MacLaren, Philip J., 439 Knickerb'ker rd.,Tenafly(2)
Maclay, Joseph A., 239 Broadway, Paterson (16)
MacMillan, C. Wright, 4 Duryea rd.,Up. Montcl'r(7)
MacNeal, Perry S., 417 Chester av., Moorestown (3)
Macpherson, Elwood H., 34 Rawley pl., Millburn (7)
Madara, John S., 31 Market st., Salem (17)
Madaras, John S., 870 Avenue C, Bayonne (9)
Maddren, Russell F., 372 Union st., Hackensack (2)
Mader, A. Ivan, Jr., 430 Union st., Hackensack (2)
Madi, Risley J., 735 Montrose st., Vineland (6)
Madison, L. Keith, 358 Pacific av., Jersey City (9)
Maffeo, Carl E., 266 Van Buren st., Newark (7)
Maffongelli, Joseph A., 311 Broadway, Paterson (16)
Magee, Edward S., 201 Wt. Horse Pk., Audubon (4)
Magee, Harold S., N. J. State Hosp., Trenton (11)
Magee, Russell S., 201 Wt. Horse Pk., Audubon (4)
Magee, William P., 1009 Abbott blvd., Palisade (2)
Maggio, George A., 419 Roseville av., Newark (7)
Maggio, Nicholas A., 130 Fleming av., Newark (7)
Maggio, Ross J., 206 Park av., Westfield (20)
Magill, Marcus, 4116 Ventnor av., Atlantic City (1)
Magnes, Max, 555 15th av., Paterson (16)
Magoda, Anthony F., 727 Grape st., Vineland (6)
Magovern, Thomas F., 228 S. Orange av.,S.Orange(7)
Magson, Albert E., 302 S. Main st., Hightstown (11)
Maher, John E., 90 Third av., Long Branch (13)
Mahoney, Francis W., 41 Crescent av.,JerseyCity(9)
Mahoney, Thomas H., 321 Ridge rd., Rutherford (2)
Mahood, Herbert L., 86 Durand rd., Maplewood (7)
Mains, M. Paul, Mercer Hospital, Trenton (11)
Maisel, Irving, 112 Chapman pl., Irvington (7)
Majeski, Henry J., 930 Brunswick av., Trenton (11)
Major, Morton M., 4212 Ventnor av., Atlantic City(1)
Makin, John B., 601 Grand av., Asbury Park (13)
Malatesta, Charles S., 1203 Martine av.,Plainf'd(20)
Maldeis, A. M. K., 117 N. Sixth st., Camden (4)
Malgeri, John, 279 Shepard av., East Orange (7)
Malinowski, John, 562½ Jersey av., Jersey City (9)
Mallison, Herbert, 819 Park av., Plainfield (20)
Mamlet, Alfred M., 33 Johnson av., Newark (7)
Manahan, Daniel V., 55 E. Front st., Red Bank (13)
Mancene, Edward M., 225 Main st., Little Ferry (2)
Mancusi-Ungaro, Alvin P.,268 Mt.Pr'p't av.,N'w'k(7)
Mancusi-Ungaro, Harold, 480 Grove st.,U.Montcl'r(7)
Mancusi-Ungaro, Lodovico, 156M.Pr'p't av.,N'w'k(7)
Mandel, Jacob, 2769 Boulevard, Jersey City (9)
Manfro, Gerard J., 35 Newark st., Newark (7)
Mangelsdorff, Arthur F.,707 W.Eighth st.,Pl'nf'd(18)
Mangogna, Philip, 334 Barclay st., Perth Amboy(12)
Manly, Thomas E., 390 Park av., Paterson (16)
Mann, Hillard, 431 Washington av., Belleville (7)
Mann, Jacob J., 255 State st., Perth Amboy (12)
Manno, Peter D., 843 Boulevard, Bayonne (9)
Manrodt, Kurt, Jr.,N'w'k-Pompt'n Tpk. P'pt'n P.(16)
Manser, Ernest E., 321 Haddon av., Collingswood(4)
Mansfield, Richard, 435 59th st., West New York(9)
Mara, Francis J., 452 Wayne st., Jersey City (9)
Marcarian, Henry G., 917 Cooper st., Camden (4)
Marchigiano, Anthony T., 310 Roseville av.,New'k(7)
Marchione, Nicholas E., 105 S. East av., Vineland(6)
Marcus, Bernard, 6 S. Clark av., Somerville (18)
Margaretten, Edward I., 280 Hobart st.,P.Amboy(12)
Margolin, Samuel J., 1012 80th st., North Bergen (9)
Margolis, Alfred, 736 Sanford av., Newark (7)
Margulies, Charles, 49 Park dr., Nutley (7)
Marin, Robert B., 85 Park st., Montclair (7)
Marini, Dominick, 40 Henry st., Passaic (16)
Marino, Benjamin, 14 Llewellyn pl., N. Br'nsw'k(12)
Mark, Harold I., 1022 Garrison av., Teaneck (2)
Mark, Harry B., 600 Elm ter., Riverton (3)
Mark, Joseph S., 102 Green st., Woodbridge (12)
Markel, Albert G., 450 Park av., Paterson (16)
Markley, Luther A., Holy Name Hosp., Teaneck (2)
Markowitz, Benjamin B., 2749 Boulevard,Jer.City(9)
Marks, Herbert M., Parkview Apts.,Collingswood(4)
Marone, Carmine R., 752 Newark av., Elizabeth (20)
Maroney, James H., 129 Summit av., Summit (20)
Marquis, Dean W., 144 Harrison st., East Orange(7)
Marquis, W. James, 12 Hawthorne av., E. Orange(7)
Marra, Rocco S., 221 Park av., Orange (7)
Marrocco, William A., 445 Park av., Paterson (16)
Marshall, Carter L., 653 High st., Newark (7)
Marshall, Frank A., 2202 Palisade av.,Weeh'wk'n(9)
Marshall, H. Donald, 707 N. Indiana av., Atl. City(1)
Marshall Irving, 25 Kensington av., Jersey City (9)
Marshall, John F., 131 Perry st., Trenton (11)
Martin, Francis E., 269 Morris av., Springfield (20)
Martin, Leonard J., 206 Prospect av., Asbury Pk.(13)
Martin, Theodore, 577 Lincoln av., Glen Rock (16)
Martin, Wm.E.,Magna Cop. Co.,Superior, Arizona(20)
Martland, Harrison S., City Hospital, Newark (7)
Marts, George H., 956 Park av., Plainfield (20)
Marucci, Horace D., 298 Elmwood av.,Maplewood(7)
Marvel, Peter H., 2216 Shore rd., Northfield (1)
Marvin, Dorothy H., 51 Livingston av.,N.Br'sw'k(12)
Marx, Frederick, J., 539 Kinderkam'k rd.,River E.(2)
Mascara, Gaetano A., Valley & Landis avs.,Vinel'd(6)
Masciocchi, Thomas A., 316 Park av., Orange (7)
Mason, Alvin S., 26 Olive st., Salem (17)
Mason, James H., 1616 Pacific av., Atlantic City (1)
Mason, John T., Jr., 118 Young av., Cedar Grove(7)
Mason, Stuart A., 756 E. Ridgewood av.,Ridgew'd(2)
Mason, Virgil A., 144 Harrison st., East Orange (7)
Massengill, Fulton, 233 Heywood av., Orange (7)
Massey, J. Bruce, 665 High st., Newark (7)
Mast, Joseph E., 1270 Magie av., Elizabeth (20)
Masterson, John E., 99 Brookdale Gdns.,Bloomf'd(7)
Masterson, John F., 98 Myrtle av., Irvington (7)
Mastroianni, Frank M., 634 Sherm'n av.,Ros'leP.(20)
Mastromonaco, Joseph D., 790 Avenue C,Bayonne(9)
Masucci, Alberico, 128 Carroll st., Paterson (16)
Matheke, George A., 29 E. Wood st., East Orange (7)
Matheke, Otto G., 328 Sussex av., Newark (7)
Matheke, Otto G., Jr., 328 Sussex av., Newark (7)
Mathesheimer, Jacob L.,280 O. Bergen rd.,Jer.City(9)
Matheson, Gilchrist E., 144 Harrison st.,E.Orange(7)
Mathews, Raymond H., 186 South st., Morrist'n(14)
Mathews, William J., 938 Hudson st., Hoboken (9)
Matthews, Clifford B., 1180 Raymond Blvd.,New'k(7)
Matthews, Leonard M., 655 Main av., Passaic (16)
Matthews, William, 139 Broad st., Red Bank (13)
Matthews, William F., 180 Walnut st., Montclair(7)
Matturri, Dominick A., 81 Gifford av., Jersey City(9)
Maturi, Vincenzo E., 814 Boulevard, Bayonne (9)
Matyjasik, Frank M., 518 Centre st., Trenton (11)
Mauer, Richard E., 116 Ridge rd., Rutherford (7)
Maurer, K. Virginia, 16 Prospect rd., Livingston (7)
Maurer, Martha E., 153 Mountain av., Westfield (20)
Maver, William W., 921 Bergen av., Jersey City (9)
May, Ernst A., 52 DeForest av., Summit (7)
Mazur, Edward F., 540 Bridgeboro rd., Riverside (3)
Mazur, Stephen H., 359 16th av., Irvington (7)
Mazzotta, Samuel, 5806 Pacific av., Wildwood (5)
McAfoos, Louis G.,Jr.,346 Richey av.,W.Coll'gsw'd(4)
McAlpine, Paul, 129 Summit av., Summit (20)
McAuliffe, Vincent, 910 Queen Anne rd., Teaneck(2)
McAveney, Thomas F.G., 58 N.Munn av.,E.Orange(7)
McBride, Andrew F., Jr., 655 Broadway,Paterson(16)
McCaffrey, Wallace T., 82 Highw'd ter.,Weeh'k'n(9)
McCall, Jesse, 9 Linwood av., Newton (19)
McCallion, Wm. H., 722 Westminster av.,Elizab'h(20)
McCallum, Arthur S.,213 Clements Br.rd.,Bar'gt'n(4)
McCarroll, E. Mae, 59 Hillside pl., Newark (7)
McCarron, James A., 727 Avenue C, Bayonne (9)
McCarthy, Arthur M., 2772 Federal st., Camden (4)
McCarthy, George L., 506 Union av., Paterson (16)
McCarthy, John J., 1001 79th st., North Bergen (9)
McCarthy, William P., 1203 Parkside av.,Trent'n(11)
McCauley, Francis J., 140 Roseville av., Newark (7)
McClintock, Elsie, 1439 Maple av., Hillside (20)
McCluskey, Harry B., 40 Hawthorne av.,E.Orange(7)

McConaghy, Thomas P.,10th & Cooper sts.,Camd'n(4)
McConville, Edward B.,1213 Hamilt'n av.,Trent'n(11)
McCormack, Frank C., 95 Tenafly rd., Englewood(2)
McCormack, Raym'd A.,873 Bellevue av.,Trent'n(11)
McCormick, James E., 775 Elizabeth av., Newark(7)
McCormick, Robert, 30 Main st., Madison (14)
McCormick, Wm. H.,Jr., 266 Market st.,P.Amboy(12)
McCracken, Josiah C., Jr.,16 S.Suffolk av.,Ventnor(1)
McCreight, David W., N.J. State Hosp.,Marlboro(13)
McCroskery, Hamilton M., 471 N.Arl'gt'n av.,E.Or.(7)
McCue, John B., 118 Lenox av., Pompton Lakes(16)
McCurdy, Robert G.,35 Ocean Blvd.,Atlantic Hds.(13)
McDermott, Vincent T., 509 State st., Camden (4)
McDonald, John, Jr., 322 Fifth st., Belvidere (21)
McDonald, Richard J., 80 Park av., Paterson (16)
McDonnell, George J., 69 W. Main st., Freehold (13)
McGahn, Joseph, 18 S. Stenton pl., Atlantic City (1)
McGeary, John A., 31 Lincoln Park, Newark (7)
McGinn, William J., 1913 Westfield av.,Scotch P.(20)
McGlade, Thomas H.,1225Walnut av.,W.Col'gsw'd(4)
McGovern, John F.,Jr.,24Liv'gston av.,N.Br'sw'k(12)
McGovern, Patrick J., 3284 Boulevard, Jer. City (9)
McGreevey, Harold, 101 Monmouth av.,Spring L.(13)
McGuigan, Francis A.,212 N.Warren st.,Trenton(11)
McGuinn, William B., 33 Center st., So. Orange (7)
McGuire, John J., 2 Gould av., Newark (7)
McGurl, Francis J., 763 Broad st., Newark (7)
McIlveen, Marion, 260 Godwin av., Ridgewood (2)
McKeever, William J., 990 Summit av., Jer. City (9)
McKelvie, Julius C., 55 Rockwell av., L. Branch (13)
McKeown, George H.C.,55 Revere rd.,Drexel H.,Pa.(7)
McKiernan, Robert L.,75 Liv'gston av.,N.Br'sw'k(12)
McKim, William F., 317 Roseville av., Newark (7)
McKinley, C. Scott, Old Sterling rd., Plainfield (18)
McKinney, Thomas S., 75 Demarest pl., Maywood(2)
McKinstry, John W., Railroad av., Jamesburg (12)
McLane, A. Donald, 276 Engle st., Englewood (2)
McLaughlin, Thomas F., 19 Durham st., Metuc'n(12)
McLaughlin, Wm. B., 120 Branch Br'k dr.,Bel'v'e(7)
McLean, Hugh A., 414 61st st., West New York (9)
McLellan, George A., 19 Hawthorne av.,E. Orange(7)
McLeod, Harry J., 71 Forest rd., Tenafly (2)
McLoughlin, Frank J., 2595 Boulevard, Jer. City(9)
McLoughlin, John W., 34 W. 32nd st., Bayonne (9)
McMahon, Bernard C., 15 James st., Morristown(14)
McMurtrie, William A., 35 Franklin st., Morrist'n,14)
McPherson, Malcolm E.,141Di'm'd Br.av.,H'wth'e(16)
McTague, Robert S., 37 E. Wash'gton av.,Atl.Hd.(13)
McVay, Edward A., 234 Lafayette st., Newark (7)
McVeigh, Charles J. D., Main st., Stanhope (19)
McWhorter, John E., 247 Mountain rd., Englew'd(2)
McWilliams, Charles E., Church st., Blackwood (4)
Means, Paul B., N. J. State Hosp., Trenton (11)
Mearin, Robert J., 24 Porter pl., Montclair (7)
Mears, William G., 407 Broad av., Leonia (2)
Mechanik, Harvey K.,1231 Randolph rd.,Plainf'd(20)
Mecray, Paul, Jr., 405 Cooper st., Camden (4)
Medinets, Howard E., Army (7)
Meehan, George E., 117 Mercer st., Jersey City (9)
Meehan, James S., Jr., 85 W. Main st.,Bergenfield(2)
Meehan, Martin M., 339 Washington av., Bellev'e(7)
Meeker, John L., 6 DeBarry pl., Summit (20)
Meer, Nadhim E., 320 Park av., Paterson (16)
Megibow, Harold J., 82 W. Main st., Ramsey (2)
Meier, William U., 1062 Ringwood av., Haskell (16)
Meineke, William C., Jr.,820 Chestnut st.,Roselle(20)
Meinhard, Fred, 661 Broad st., Bloomfield (7)
Meisel, David B., 818 S. 12th st., Newark (7)
Mele, Vincent, 268 Prospect st., South Orange (7)
Melien, Stanley H., 1 Park pl., Bloomfield (7)
Meloney, Lester F., 179 Second st., Clifton (16)
Meitsner, Louis, 904 Hudson st., Hoboken (9)
Meltzer, Louis, 837 Avenue C, Bayonne (9)
Meneve, Alfred D., 333 Van Houten st.,Paterson(16)
Menge, Carl H., 236 Washington st.,Toms River(15)
Menk, Paul E., 31 Lincoln Park, Newark (7)
Menna, Nicholas R.,29 Wash'gton av.,Williamst'n(8)
Mensch, Harvey G., 1117 Mary st., Elizabeth (20)
Merendino, Anthony G., 1616 Pacific av., Atl. City(1)
Merk, Anthony, 79 N. Ninth st., Newark (7)
Merkelbach, Walter P., 288 Broad st., Bloomfield (7)
Merliss, Eugene, 299 Clinton av., Newark (7)
Merliss, Harry, 972 Main st., Hackensack (2)
Merlo, Francis A., 860 Park av., Elizabeth (20)
Merlo, Francis V., 33 Prince st., Elizabeth (20)
Mermod, Camille, 15 Washington st., Newark (7)
Merrick, Evelina, 142 Clinton av., Newark (7)
Merrill, Edwin D., Green st., Milford (10)
Mersch, Marcel A., 185 Maple st., Englewood (2)
Merselis, John G., 110 Irvington av., S. Orange (7)
Mersheimer, Christian H.,15 Reserv'r av.,Jer.City(9)
Messina, Thomas, 128 Park av., East Orange (7)
Messinger, Samuel, 31 Roosevelt av., Carteret (12)
Metsky, Joseph, 777 High st., Newark (7)
Metz, Henry, 445 Prospect av., Hackensack (2)
Metzer, Freeman W., 428 Fairview st., Riverside (3)
Meurlin, Alfred, 144 Harrison st., East Orange (7)
Meyer, Eugene A., 427 Cooper st., Camden (4)
Meyer, George P., 410 Haddon av., Camden (4)
Meyer, Howard M., 400 Maple Hill dr.,Hackens'k(2)
Meyers, Francis R., 604 E. 28th st., Paterson (16)
Meyerson, Noah, 428 59th st., West New York (9)
Mezzetti, Alfred F., 220 S. Sixth st., Vineland (6)
Michelson, Henry, 675 E. 24th st., Paterson (16)
Mick, Edwin C., 46 S. Burnett st., East Orange (7)
Mickewich, Stephen A., 817 Avenue C, Bayonne (9)
Midura, Peter, 507 Park av., Plainfield (20)
Miele, Frank A., 327 Carr av., Keansburg (13)
Migliori, Angelo, 531 S. Clinton av., Trenton (11)
Milanesi, Armand M., 614 79th st., N. Bergen (9)
Milano, Cesare A., 1 S. Brighton av., Atlantic City(1)
Miller, Earle K., 2512 Nottingham way, Trenton (11)
Miller, George M., 288 Elm av., Rahway (20)
Miller, Gerald H., Branerd pl., Cranbury (11)
Miller, Herman P., 815 S. 12th st., Newark (7)
Miller, Howard B., 14-18 Chandler dr.,Fair Lawn(16)
Miller, I. Irwin, 675 Sanford av., Newark (7)
Miller, Joseph A., 1 S. Centre st., S. Orange (7)
Miller, Max H., 311 60th st., West New York (9)
Miller, Nathan, 838 S. 12th st., Newark (7)
Miller, Ralph, 32 Johnson av., Newark (7)
Miller, Raymond E., 192 W. State st., Trenton (11)
Miller, Reginald C., 1420 Greenwood av.,Trenton(11)
Miller, S. David, 90 Carroll pl., N. Brunswick (12)
Miller, Samuel R., 407 S. Main st., Pennington (11)
Miller, Thomas E.,New'k-Pompt'n tnp.,P'pt'n Pl.(14)
Miller, William H., 7 Dickinson st., Woodstown (17)
Milligan, Robert B., Army (20)
Milligan, Robert S., 42 Elm st., Summit (20)
Milliser, Estelle T., 126 N. Euclid av., Westfield(20)
Mills, Charles S., 106 Lippincott av., Riverton (3)
Milnamow, Paul, Army (4)
Minck, Peter, Jr., East Saddle River rd.,Saddle R.(2)
Mineur, Henry J., Jr., 117 Alden st., Cranford (20)
Minier, Carl L., 226 N. Park st., East Orange (7)
Miningham, William D., 18 Hedden ter., Newark (7)
Minnefor, Charles A., 1164 S.Orange av.,S.Orange(7)
Minnella, Thomas J., 268 Springfield av.,Summit(20)
Minschwaner, Geo. G.,Jr.,832 Greenw'd av.,Tr't'n(11)
Mintz, Alvin R., 32 Maple av., Morristown (14)
Mintz, Julius, 51 Sycamore av., North Plainfield(18)
Miranti, Paul J., 2685 Boulevard, Jersey City (9)
Mishler, Jay E., 1616 Pacific av., Atlantic City (1)
Misko, Albert, 117 Westervelt av., N. Plainfield(18)
Missonellie, William, 404 Lafayette av., Hawt'ne(16)
Mitchell, Augustus J.,S.E.1st av.& 22d st.,Miami,F.(7)
Mitchell, Charles H., 1100 W. State st., Trenton (11)
Mitchell, Charles R., 311 Broadway, Paterson (16)
Mitchell, Walter L.,Jr.,161 Roseville av., Newark(7)
Mitchell, Willis B.,Holly Cranm'r Man'r,Toms R.(15)
Mitskas, Theodore V.J.,1329Greenw'd av.,Tr'nt'n(11)
Mockett, Walter W., 55 E. Magnolia av., Mayw'd(2)
Modarelli, Walter H., 1505 Central av., Union City(9)
Modero, Charles J., 124 Bloomfield st., Hoboken (9)

Modeski, Chester J., 306 Roseville av., Newark (7)
Modny, Michael T.,262 Ridgewood av.,Glen Ridge(7)
Modrys, Walter F., 714 Palisade av., Cliffside Pk.(2)
Moeckel, Clarence W., 63 S.Fullerton av.,Montcl'r(7)
Mohair, John P., N. J. State Hosp., Marlboro (13)
Mohr, Frank L., 560 Morris av., Summit (20)
Moir, John A., 103 Mechanic st., Cape May Ct. H. (5)
Molitch, Matthew, 705 Pacific av., Atlantic City (1)
Monaco, Dante P., 436 Roseville av., Newark (7)
Monaco, Saverio A., 293 Camden st., Newark (7)
Monaloy, Morris A., 414 Passaic av., Passaic (16)
Monica, Louis A., 875 Boulevard, Bayonne (9)
Monte, Thomas D., 213 Park st., Montclair (7)
Moolten, Sylvan E., 103 N. Fourth av.,Highl'd P.(12)
Moon, Dabney vonK., 706 Park av., Plainfield (20)
Moore, Dean C., 391 Highland av., Orange (7)
Moore, J. Leonard, 59 Westcott rd., Princeton (11)
Moore, Ralph L., 127 N. Broad st., Woodbury (8)
Moore, William J., 10 N. Olden av., Trenton (11)
Mores, Herbert R., 321 Union st., Hackensack (2)
Moress, Edward J., 1524 Maple av., Hillside (7)
Morgan, Brown E., 32 Benson st., Bloomfield (7)
Morgenstern, Mates, 184 Liv'gston av.,N.Br'sw'k(12)
Moriarty, John F., 723 Washington st., Hoboken(9)
Morici, Theodore, 80 Howe av., Passaic (16)
Moriconi, Albert F., 438 Hamilton av., Trenton (11)
Morley, Grace C., 1218 Hudson st., Hoboken (9)
Morrill, James P., Jr., 310 Broadway, Paterson (16)
Morris, Carlyle, Spring st., Metuchen (12)
Morris, David G., 11 W. 26th st., Bayonne (9)
Morris, Karl E., 648 E. Broad st., Westfield (20)
Morris, Nathan, 607 E. Second st., Plainfield (20)
Morris, Thomas M., 505 Park av., Plainfield (20)
Morris, Watson B., 193 Morris av., Springfield (20)
Morrison, Frederick H., 61 High st., Newton (19)
Morrow, J. Lloyd, 197 Passaic av., Passaic (16)
Morton,Thomas V.,Jr.,263 Bloomfield av.,Bloomf'd(7)
Moscoe, Harry A., 472 Park av., Paterson (16)
Mosig, John J., 514 Jefferson av., Avon (13)
Moss, Jack W., Maple av., Wyckoff (2)
Mott, Joseph E., 426 Park av., Paterson (16)
Motzenbecker, William J., 16 Milford av., New'k (7)
Mountford, William E., 217 N. War'n st.,Tr'nt'n(11)
Movelle, John, 840 River rd., Fair Haven (13)
Muccia, John J., 7 Tonnele av., Jersey City (9)
Mueller, George H., Box 132, Denville (9)
Mulford, William P., 202 Warren st., Beverly (3)
Muller, Frederick L., 511 Broad st., Carlstadt (2)
Mulligan, Edward W., 77 Shrewsb'y av.,Red B'k(13)
Mulligan, Luke A., 230 Fort Lee rd., Leonia (2)
Mullin, Raymond J., 76 Shanley av., Newark (7)
Mulvihill, William J., 275 Boulevard, Bayonne (9)
Munro, Charles A., 77 Main st., Marlton (3)
Munro, Jeannette, 2 Queenston pl., Princeton (11)
Murdock, Alfred W., Jr., Box 834, Sparta (19)
Murn, Charles J., 48 Smith st., Paterson (16)
Murphy, Arthur G., 454 Park st.,Upper Montclair(7)
Murphy, George E.,900 Queen Anne rd.,Teaneck(16)
Murphy, Herschel S., 320 Chestnut st., Roselle (20)
Murphy, James A., 312 Bellevue av., Trenton (11)
Murphy, James M., 2757 Boulevard, Jersey City (9)
Murphy, Leo J., 1814 West st., Union City (9)
Murray, Clifford K., 5901 Ventnor av., Ventnor (1)
Murray, Edward F., 140 Roseville av., Newark (7)
Murray, Edwin N., 130 N. Broadway, Camden (4)
Murray, Harrold A., 624 Mt. Prospect av.,New'k(7)
Murray, Norman L., 129 Summit av., Summit (20)
Murto, Thomas V., 117 Buckingham av., Trenton(11)
Musetto, Carmelo A., 135 Cornelia st., Boonton (14)
Mustermann, Otto H., 303 48th st., Union City (9)
Musulin, Nicholas R., 514 Cooper st., Camden (4)
Mutter, Alfred A., 75 Beech st., Arlington (9)
Myatt, Leslie E., 98 N. Pearl st., Bridgeton (6)
Myers, Norman V., 136 Engle st., Tenafly (2)

ASSOCIATE MEMBERS

Mahadeen, Onver, 51 Union av., Paterson (16)
Mazza, James G.,260 Westwood av.,Long Branch(13)
McManus, James W., 8 Hedden ter., N.Arlington (7)
Mearns, James B., 10 Arlington av., Hawthorne (16)
Mendelson, Max, Army (7)
Miller, Bernard J., 75 Raritan av., Highland Pk.(12)
Miningham, William D.,Jr., 18 Hedden ter.,New'k(7)
Moog, Charles R., 208 Walton st., Ridgewood (16)

N

ACTIVE MEMBERS

Naame, John M., 8014 Monmouth av., Margate C.(1)
Nacca, Carl A., 46 Cleveland st., Orange (7)
Naclerio, Amedeo, 207 Hackens'k st.,Wood-Ridge(2)
Nadel, Charles I., 986 Sanford av., Irvington (7)
Nafash, Shafeek, 1117 16th st., North Bergen (9)
Nafey, Herbert W., 51 Livingston av.,N.Br'nsw'k(12)
Naidorff, Saul A., 421 W. Seventh st., Plainfield (20)
Nappi, Pasquale E., 433 Mt. Prospect av.,Newark(7)
Narrett, Sidney, 140 Passaic av., Passaic (16)
Nash, Alexander E., 30 Forrest av., Verona (7)
Nash, Herman S., 865 S. 11th st., Newark (7)
Nataro, Joseph, 172 Littleton av., Newark (7)
Nataro, Maurice, Nichols Gen. Hosp.,Louisv'e,Ky.(7)
Nathanson, Norman, 494 Broadway, L. Branch (13)
Naulty, Charles W., Jr., 403 High st., P. Amboy (12)
Navazio Attilio, 29 DeHart st., Morristown (14)
Nay, C. Paul, 1147 Langham av., Camden (4)
Nayfield, Ronald C., 990 S. Broad st., Trenton (11)
Neals, Huerta C., 130 Atlantic st., Jersey City (9)
Neander, David G., 57 Chestnut st., Salem (17)
Neibrief, Milton N., 979 Clinton av., Irvington (7)
Neiderhoffer, Sydney L., 469 Broadway,L.Branch(13)
Nelson, Clifford H., 200 Isabella av., Irvington (7)
Nelson, Francis B., 275 Orchard st., Westfield (20)
Nelson, Harry, 36 Lupton av., Woodbury (8)
Nelson, Richard A., 763 Broad st., Newark (7)
Nemiroff, Nathan, 348 Kinderkamack rd., Oradel (2)
Nemirow, Martin, 162 Lexington av., Passaic (16)
Nemzek, William P. B., 8 Hedden ter.,N.Arl'gton(7)
Nesbitt, Elizabeth, N. J. Train'g Sch'l, Little F'ls(16)
Netz, Lester W., 365 W. Anderson st.,Hackensack(2)
Neumann, Alfred, 432 Washington av., Linden (20)
Nevins, Thos. F., Jr., Esso Stand'd Oil Co.,Lind'n(20)
Nevius, John K., Jr., 1165 Park av., Plainfield (20)
Newbury, Graham C., 234 Summit av., Summit (20)
Newcomb, Marcus W., Browns Mills (3)
Newman, Abraham J.,132 Manhattan av.,Jer.City(9)
Newman, Grace T., 339 Grove st., Montclair (7)
Newmeyer, Joseph, 2632 Federal st., Camden (4)
Ney, J. Marshall, 671 Broad st., Newark (7)
Nicas, Allen M., 450 Broadway, Long Branch (13)
Nichols, Joseph E., 144 Harrison st., E. Orange (7)
Nickman, E. Harrison, 1616 Pacific av., Atl. City (1)
Nicol, Lorenz, C., 360 Larch av., Bogota (2)

Nicola, Toufick, 96 Gates av., Montclair (7)
Nicoll, George L., 25 McDavitt pl., Dover (14)
Nieman, Solomon Z., 191 Liv'gston av.,N.Br'sw'k(12)
Niemiera, Alexander K., 509 State st., P. Amboy(12)
Niemtzow, Frank, 55 E. Main st., Freehold (13)
Nimaroff, Harold, 665 Allwood rd., Clifton (16)
Nittoli, Rocco M., 660 E. Jersey st., Elizabeth (20)
Nobile, James J., 913 Hudson st., Hoboken (9)
Noll, Louis, 1383 Clinton av., Irvington (7)
Nonviato, Frank A., 50 Centre st., Trenton (11)
Noone, Thomas A., 416 Broadway, Camden (4)
Normand, Alphonse F., 113 Market st.,P.Amboy(12)
Notkin, Meyer, 559 Broadway, Paterson (16)
Noto, Philip, 158 Washington pl., Passaic (16)
Novak, Edward J., 61 Green st., Woodbridge (12)
Novak, John G., 111 Clinton av., Newark (7)
Novello, Joseph A., 641 Second av., Elizabeth (20)
Novich, Max, 41 Clinton pl., Newark (7)
Nowak, Emil, Army (16)
Null, Robert H., 802 E. Front st., Plainfield (20)
Nussbaum, Harvey E., 695 Clinton av., Newark (7)
Nussbaum, Joseph, 321 Elmora av., Elizabeth (20)
Nussbaum, Nathan, 237 Lakeview av., Clifton (16)
Nutzel, Leon P., 610 Franklin av., Nutley (7)
Nuzzolo, Charles A., 400 Park av., Paterson (16)
Nyiri, William A., 32 Johnson av., Newark (7)
Nyvall, Pierre J., 9 Maple av., Barnegat (15)

ASSOCIATE MEMBER

Noble, Paul R., 153 Livingston av.,N. Brunswick(12)

O

ACTIVE MEMBERS

Oberlander, Gertrude, 866 S. 13th st., Newark (7)
Obert, J. Edwin, Main st., New Egypt (15)
Obester, Gabriel E., 640 N. Broad st., Elizabeth (20)
O'Brian, Dennis M., 154 Lexington av., Passaic (16)
O'Brian, E. Raymond, 831 B E. Front st.,Plainf'd(20)
O'Brian, Jeremiah H., 663 Main av., Passaic (16)
O'Brien, Edwin J.,Jr.,733 Watchung av.,Plainf'd(20)
O'Brien, John R., 174 Bowers st., Jersey City (9)
Ockene, Abraham, 2415 Palisade av., Union City (9)
O'Connell, James J., 116 Liv'gston av.,N.Br'sw'k(12)
O'Connell, William, 87 Clifton ter., Weehawken (9)
O'Connor, Bernard A., 47 Central av., Newark (7)
O'Connor, Dennis F., 27 S. Kingman rd.,S.Orange(7)
O'Connor, Michael J., 98 Shanley av., Newark (7)
O'Crowley, Clarence R., 31 Lincoln Park, Newark(7)
Oestreicher, Harry, Jacob Ford Vil., Morrist'n(14)
Offenkrantz, Freder'k M., St. Joseph's H.,Pat'rs'n(16)
Ogden, Andrew E., 1829 Greenwood av., Trenton(11)
Ogden, Michael A., 20 Grove st., Passaic (16)
O'Grady, Michael J., 330 Washington av.,Bellev'e(7)
Okin, Irving, 165 Passaic av., Passaic (16)
Olinger, Mervin G., Essex Co. Sana., Verona (7)
Olini, Joseph J., 30 W. Market st., Newark (7)
Olini, Louis J., 30 W. Market st., Newark (7)
Olivo, Matthew, 524 Cooper st., Camden (4)
Olpp, John L., 49 Ivy lane, Tenafly (2)
Ondovchak, M. Frederic,10 Kings Hy.,E.,Mt. Eph.(4)
O'Neill, Charles L., 11 N. Seventh st., Newark (7)
O'Neill, Charles L., Jr., 671 Broad st., Newark (7)
O'Neill, Earl A., 503 Park av., Plainfield (20)
O'Neill, Joseph F., 41 E. Broad st., Hopewell (11)
Onorato, Vincenzo, R., 66 Christopher st.,Montcl'r(7)
Opdyke, Gordon M., 61 Sunset av., Montclair (7)
Openchowski, Mieczyslaw,399Mt.Prosp't av.,N'w'k(7)
Opfermann, John L., 167 Bay av., Highlands (13)
Oppenheimer, Albert, 15 W. Maple av., Moorest'n(3)
Opper, Philip, 606 E. 26th st., Paterson (16)
Oram, Joseph H., 495 Broadway, Paterson (16)
Oransky, Marvin, 10 38th st., Irvington (7)
Oren, Hyman, 74 Perry st., Park Ridge (2)
Orloff, Samuel, 59 Girard pl., Newark (7)
Ormsby, Thomas J., 1180 Raymond blvd.,Newark(7)
Ornaf, I. Edward, 1145 Thurman st., Camden (4)
O'Rourke, James J., 871 Stuyvesant av.,Trenton(11)
Orris, Harold J., 80 Chancellor av., Newark (7)
Ortolano, James J., 911 Washington st., Hoboken(9)
Orton, Foster, 196 Elm av., Rahway (20)
Orton, Henry B., 224 Delavan av., Newark (7)
Orton, Stuart, 196 Elm av., Rahway (20)
Osborn, A. Downey, 415 Fourth av., Belmar (13)
Osborn, Edward G., 3194 Alabama rd., Camden (4)
Osher, Morris M., 100 Martine av., N., Fanwood (20)
Oshrim, Henry, 7500 Bergenline av.,North Bergen(9)
Osterreicher, Desider, 427 Bergen av., Jersey City(9)
O'Sullivan, John R., 11 Quincy av., Arlington (9)
Ostrowski, Sigismund J., 265 Broad st., Bloomf'd (7)
Otis, Edwin J., 138 Bath av., Long Branch (13)
Ott, Franklin B., 999 Clinton av., Irvington (7)
Outwin, Richard N., 4704 Perlita st.,N.Orleans,La.(7)
Owen, Philip, 973 Salem rd., Union (20)

ASSOCIATE MEMBER

O'Sullivan, Elihu P., 3 Woodland av.,East Orange(7)

P

ACTIVE MEMBERS

Pacicco, Michele, 609 Pavonia av., Jersey City (9)
Padden, Aloysius F., 335 Orchard ter., Bogota (2)
Paddock, Royce, 965 Broad st., Newark (7)
Padney, Edward V., 452 Jersey av., Jersey City (9)
Padovano, Joseph, 517 Roseville av., Newark (7)
Pagano, Peter, 324 Franklin av., Ridgewood (2)
Pagliughi, John J., 1915 Palisade av., Union City (9)
Paisley, Ellwood S., 501 Wt. Horse Pk.,Had'nHts.(4)
Palazzo, William L., Holy Name Hosp., Teaneck (2)
Palin, George, 27 A Wavecrest av., Winfield (20)
Palladino, Alessandro, 86 W. Com'rce st., Br'get'n(6)
Pallen, Conde deS., 6 E. Passaic st., Rochelle Pk. (2)
Palma, Nicholas, 20 Hillside av., Glen Rock (16)
Palmer, Francis R., 220 Lexington av., Passaic (16)
Palmer, Harris H., 6 Willow Gr. Pkwy.,Westfi'd(20)
Palmer, Henry S., 128 Court st., Newark (7)

Palmeri, Anthony, 111 Chelsea rd., Clifton (16)
Palmisano, Vincent S., 13 W. 6th av., Runnemede(4)
Palumbo, Vincent A., 22nd & Blvd., Kenilworth (20)
Panigrosso, Louis R., 455 Lawrie st., P. Amboy (12)
Panitch, William, 90 Baldwin av., Newark (7)
Pannullo, John N. P., 365 Roseville av., Newark (7)
Pansy, Abraham A., 12 Jackson st., South River (12)
Pantaleone, Joseph, 504 Hamilton av., Trenton (11)
Papera, John J., 8 Washington pl., Caldwell (7)
Parell, George C., 275 S. Seventh st., Newark (7)
Parent, Sol, 89 Lincoln Park, Newark (7)
Paret, Frank L., 108 Church st., New Brunswick(12)
Paris, William, 518 E. 25th st., Paterson (16)
Parker, James W., 175 Shrewsbury av., R. Bank(13)
Parker, James W., Jr., Army (13)
Parker, John E., 385 Park av., Orange (7)
Parker, Paul, 72 N. Clinton av., Trenton (11)
Parkes, Morey, 20 Trinity pl., Montclair (7)
Parry, Allen A., 54 Green av.,Madison (14)
Parry, Antoinette R., 54 Green av., Madison (14)
Parry, Oliver K., 601 Grand av., Asbury Park (13)
Pascall, Thomas M., 197 Lincoln av., Newark (7)
Pasquale, Thomas L., 92 High st., Orange (7)
Pasquariello, Peter, 351 Totowa av., Paterson (16)
Pasternack, Elroy, Barry Gardens, Passaic (16)
Pastore, Mario, 1925 Pacific av., Atlantic City (1)
Pastras, Thomas, 116 W. Collings av., Collingsw'd(4)
Patella, Fulvio, 324 Broadway, Paterson (16)
Patten, John, Army (18)
Patterson, Isaac N., 26 Station av., Westville (8)
Patti, Frank A., 241 Broad av., Leonia (2)
Patton, Paul B., 5 Winding Way rd., Morris P. (14)
Pattyson, Ralph A., 144 Harison st., East Orange(7)
Paul, Abraham, 4901 Atlantic av., Ventnor (1)
Paul, George A., 788 Lyons av., Irvington (7)
Paul, H. Carl, 30 Westville av., Caldwell (7)
Pauly, Arthur N., 297 W. Summit st., Somerville(18)
Pavia, John R., 48 Mountainview av., East Orange(7)
Payne, Douglas, 406 Deal Lake dr.,Asbury Park(13)
Payne, Guy, Jr., 56 S. Prospect st., Verona (7)
Peacock, Arthur B., 201 E. Main st., Moorestown(3)
Pearl, Sydney S., 837 Park av., Elizabeth (20)
Peckman, Abram, 2511 Boulevard, Jersey City (9)
Pecora, Carmine L., 212 Wash'gton st.,TomsRiv.(15)
Pecora, Samuel, 599 Mt. Prospect av., Newark (7)
Pedevill, Joseph R., 232 Highland av., PalisadesP.(2)
Pedicini, Joseph L., Army (7)
Pedrick, William W., 11 West st., Glassboro (8)
Peer, Lyndon A., 15 Washington st., Newark (7)
Pellecchia, Leonard J., 109 Parker st., Newark (7)
Pellegrini, Vincent J., 8 Summit av., Hackensack(2)
Pellet, Thomas L., Hamburg (19)
Pellicane, Anthony J.,183 Liv'gst'n av.,N.Br'sw'k(12)
Penchansky, Samuel, 719 Avenue C, Bayonne (9)
Penchansky, Samuel J., 847 Avenue C, Bayonne (9)
Pendexter, Sidney E.,11 S. Arlington av.,E. Orange(7)
Pendexter, Sidney E.,Jr.,11 S.Arl'gt'n av.,E.Orange(7)
Pennington, John, 101 S. Indiana av.,AtlanticCity(1)
Pentecost, Salvador D., 14 Clarem't av., Maplew'd(7)
Pentel, Louis S., 319 60th st., West New York (9)
Peppard, S. Harcourt, 51 13th av., Newark (7)
Perelman, Julius S., 94 Shanley av., Newark (7)
Perez, John F., 3403 Pacific av., Atlantic City (1)
Perham, Bertram S., 199 Lorraine av.,U.Montcl'r(7)
Perillo, Louis, 638 Amboy av., Perth Amboy (12)
Perkel, Harold, 441 Boulevard, Bayonne (9)
Perkel, Louis L., 2801 Boulevard, Jersey City (9)
Perlberg, Harry J., 921 Bergen av., Jersey City (9)
Perlman, Maximilian, 188 High st., Nutley (7)
Permison, Michael, 1735 Stuyvesant av., Union (7)
Pernetti, Anthony M., 400 Park av., Paterson (16)
Perrine, Cornelius C., 668 River rd., Fair Haven (13)
Perrone, Anthony J., 456 Roseville av., Newark (7)
Perrone, Arthur F., 415 60th st., W. New York (9)
Perrotta, Anthony J.,Box 43,Alex'dria dr.,R.Bank(13)
Perry, Frank L., 39 East av., Woodstown (17)
Persico, Anthony, Columbus av., Harrington Pk. (2)
Pessel, Johannes F., 224 W. State st., Trenton (11)
Peters, Alban G., 327 E. 30th st., Paterson (16)
Peters, Richard C., 963 Park av., Plainfield (20)
Peterson, Walter R., 312 W. State st., Trenton (11)
Petrone, Peter A., 492 Mt. Prospect av., Newark (7)
Petry, William, 109 Treacy av., Newark (7)
Pettit, Harry H., 138 Franklin av., Ridgewood (2)
Pettit, Herschel, 807 Wesley av., Ocean City (5)
Pfeffer, Burton B., 46 Monroe st., Passaic (16)
Pflum, Francis A., 710 Grand av., Asbury Park (13)
Phelan, Walter F., 124 Chilton st., Elizabeth (20)
Phelps, James E., 203 Park av., Paterson (16)
Phillips, Algernon A., 212 W. Market st., Newark(7)
Phillips, Ralph S., 27 S. Giles st., Bridgeton (6)
Phillips, Walter, 109 East Palisade av., Englew'd(2)
Philo, Seymour S., 849 Hamilton av., Trenton (11)
Piampiano, John 207 Wantage av., Hamburg (19)
Piasecki, Chester A., 585 E. 29th st., Paterson (16)
Pickar, Gabriel, 205 N. 2nd av., Highland Park (12)
Pickert, Edward, 679 Irvington av., Newark (7)
Piegari, Felix H., 111 Mt. Pleasant av., Newark (7)
Pieper, Howard C., 120 Main st., Keyport (13)
Pierson, Carl L., 900 W. State st., Trenton (11)
Pierson, Howard W., Jr., Dewey av., Gladstone (20)
Pierson, Joseph R., 10 E. Broad st., Hopewell (11)
Pietri, Raoul, 601 Grand av., Asbury Park (13)
Pignataro, Frank P., 342 Broad st., Red Bank (13)
Pike, Charles E., 4 E. Haddon av., Oaklyn (4)
Pilch, Arthur G., 1 Willard av., Bloomfield (7)
Pilloni, Louis, 91 Beach st., Bloomfield (7)
Piltz, George F., 153 69th st., Guttenberg (9)
Pinck, Bernard, 100 Passaic av., Passaic (16)
Pinckney, Frank H., 186 South st., Morristown (14)
Pindar, Frederick S., 7500 Park av., Woodcliff (9)
Pindar, Irene D., 164 Selvage av., W. Englewood (2)
Pindar, William A., Jr., 59 Bradley av., Bergenf'd(2)
Pinerman, Robert B., 539 W. State st., Trenton (11)
Pink, Solomon H., 282 Main st., Butler (16)
Pinks, David K., 381 Fairmount av., Jersey City (9)
Pino, Anthony, 196 Irving av., Bridgeton (6)
Pinsky, Harry A., 209 S. Sixth st., Camden (4)
Pinto, Joseph, Navy (4)
Pinto, Joseph A., 50 N. 11th st., Newark (7)
Pisciotta, Vincent, 23 S. Oak st., Mt. Ephraim (4)
Pitman, Mason W. H., 17 Ross st., Somerville (18)
Pittman, Allen R., N. J. State Hosp., Trenton (11)
Pizzi, Francis W., 205 Park av., Orange (7)
Pizzi, Mario V., 205 Park av., Orange (7)
Pizzi, Peter J., Barry Gardens, Passaic (16)
Placa, James A., 171 Prospect st., Ridgewood (2)
Platt, William, West Jersey Hospital, Camden (4)
Plavin, Nathan J., 8010 Boulevard, North Bergen(9)
Plinke, Fritz W., 663 Main av., Passaic (16)
Podell, A. Alfred, 51 E. Front st., Red Bank (13)
Podkul, Theodore, 1854 Brunswick av., Trenton (11)
Pogoloff, Samuel H., 269 N. First av., Manville (18)
Pogue, Elbert H., Army (20)
Pois, John, 67 Scotland rd., South Orange (7)
Pole, Samuel B., 401 E. Commerce st., Bridgeton (6)
Poleshuck Rubin, 100 Hollywood av., Hillside (7)
Policastro, Nelson C., 378 Union st., Hackensack (2)
Polizzotti, Joseph L., 193 Park av., Paterson (16)
Polk, Charles C., 114 E. Seventh av., Roselle (20)
Pollack, Louis, 2052 Morris av., Union (20)
Pollack, Roy, 275 Engle st., Englewood (2)
Pollack, Sol, 2165 Morris av., Plainfield (20)
Pollard, William E., 245 Nassau st., Princeton (11)
Poller, Frederick K., 681 Stuyvesant av., Irv'gton(7)
Pollis, Nicholas L., 835 S. 12th st., Newark (7)
Pollock, Samuel L., 31 Lincoln Park, Newark (7)
Pollock, Theodore, 64 Grove st., Passaic (16)
Polow, Benjamin, 202 Clinton av., Newark (7)
Polowe, David, 555 E. 27th st., Paterson (16)
Pomerantz, Samuel, 9 Madison av., Newark (7)
Pomeranz, Raphael, 31 Lincoln Park, Newark (7)
Pons, Carlos A., 601 Grand av., Asbury Park (13)
Pontery, Herbert B., 89 Bowers st., Jersey City (9)

Potekhen, George P., 1232 Park av., Plainfield (20)
Potter, Benjamin P., 821 Bergen av., Jersey City (9)
Potter, Charles W., 184 Belvidere av., Wash'gt'n(21)
Potter, Ellen C., 301 W. State st., Trenton (11)
Potter, Raymond T., 144 Harrison st., E. Orange (7)
Pottinger, William E., 6 Altamont ct.,Morristown(14)
Povalski, Alexander W., 1925 Boulevard, Jer. City(9)
Powers, Robert W., 70 Midland av., Montclair (7)
Powis, Ethel M., 845 W. State st., Trenton (11)
Poyas, Morton L., 730 W. State st., Trenton (11)
Prager, Bert A., 511 Main st., Chatham (14)
Prall, Henry E., 755 Anderson av., Cliffside Pk. (2)
Prather, Charles G., 25 Westwood av., Westwood(2)
Prather, John W., 155 Washington av., Dumont (2)
Pratt, Arthur G., 516 Cooper st., Camden (4)
Prazak, Beatrice, 1024 E. Jersey st., Elizabeth (20)
Preece, John D., 192 W. State st., Trenton (11)
Pregnall, James P., 601 Grand av., Asbury Park (13)
Preis, Edwin E., 3300 Federal st., Camden (4)
Price, H. Preston, 317 Hamilton rd., Ridgewood (9)
Price, Henry S., Jr., 150 Frazer av., Collingswood(4)
Price, Kasper J., 715 Westfield av., Elizabeth (20)
Primich, Francis J., 851 Boulevard E.,Weeh'wk'n(9)
Prince, Robert A., 567 Broadway, Paterson (16)
Prince, Samuel, 7702 Park av., North Bergen (9)
Principato, Roberto, 402 Walnut st., Camden (4)
Proctor, Francis E., 332 W. State st., Trenton (11)
Proctor, Jesse E., 15 N. 13th st., Newark (7)
Protzman, Thomas B., 314 Engle st., Englewood (2)
Provenzani, Dominico, 419 Locust av.,Burlington(3)
Provenzano, Samuel, 317 S. Tenth st., Newark (7)
Provisor, Benjamin, 271 Lexington av., Passaic (16)
Prunetti, Carmen, 311 Chestnut av., Trenton (11)
Puff, Robert C., 509 N. Broad st., Woodbury (8)
Puller, Herbert I., 217 Chestnut st., Roselle (20)
Pulliam, John M., Jr., 206 N. Jersey av.,Col'gsw'd(4)
Purcell, Ernest F., 800 Stuyvesant av., Trenton (11)
Purdy, Charles H., 35 Highland av., Jersey City (9)
Putter, Eric, 227 Highland dr., Milltown (12)
Pyle, Louis A., 89 Fairview av., Jersey City (9)

ASSOCIATE MEMBERS

Pakonis, Vito, 77 Gold st., North Arlington (7)
Pashuck, Eugene T., 5401 Ventnor av., Ventnor (1)
Peysar, Joseph, 100 Hollywood av., Hillside (7)
Pisciotta, Frank,11th and Raritan avs.,Highl'd P.(12)
Piserchia, Gerald J., 379 Washington av.,Belleville(7)

Q

ACTIVE MEMBERS

Quad, Clifford W., 52 Northfield av., West Orange(7)
Quigley, Frederic J., 100 Clifton pl., Jersey City (9)
Quinn, Edward D., 323 Belleville av., Bloomfield (7)
Quinn, John J., 921 Bergen av., Jersey City (9)
Quinn, Norman J., 3303 Pacific av., Atlantic City (1)
Quirk, Martin A., 69 W. Front st., Red Bank (13)

ASSOCIATE MEMBER

Quinn, Robert H., 97 Union av., Clifton (16)

R

ACTIVE MEMBERS

Raab, Michael, 250 Lexington av., Passaic (16)
Raban, Reginald J., 1185 Yorkship sq., Camden (4)
Rabinowitz, Jacob H., 35 Randolph pl., Newark (7)
Raccuia, Vincent, 431 59th st., West New York (9)
Rachal, Hurve J., 566 High st., Newark (7)
Rachlin, Harry T., 396 Union av., Irvington (7)
Rachunis, Michael, 5th & Riverside avs.,Roebling(11)
Racz, George, 118 New st., New Brunswick (12)
Radar-Hoheb, Katherine A.,5 Linc'n av.,Ruth'rf'd(2)
Radest, Louis J., 347 Broadway, Paterson (16)
Raffetto, Joseph F., 601 Grand av., Asbury Pk.(13)
Rainey, Willard G., 34 Bayard lane, Princeton (11)
Rainone, Salvatore, 68 Park av., Maplewood (7)
Ram, Nathan H., 38 Park av., Caldwell (7)
Rampona, Joseph M., 272 Nassau st., Princeton(11)
Rampond, James R., 579 Springdale av.,E.Orange(7)
Ramsey, F. Muriel, 310 E. Pine st., Millville (6)
Randazzo, Anton P., 82 Prospect st., Passaic (16)
Rapp, Robert F., 994 Haddon av., Collingswood (4)
Rappaport, Doris I., 1363 Sussex rd., W. Englew'd(2)
Rasin, Carl, Army (16)
Raso, Frank L., 1218 Central av., Union City (9)
Rath, Morris, 140 Fourth av., East Orange (7)
Rathauser, Frank, 375 W. State st., Trenton (11)
Rathgeber, Charles F., 18 William st., E. Orange (7)
Rathmell, Thomas K., Mercer Hospital, Trenton(11)
Rauschenbach, Paul E., Jr., 612 E.29th st.,Pat's'n(16)
Rawitz, Sidney B., 42 Chancellor av., Newark (7)
Re, Natale M., 1003 Dearborn rd., Palisade (2)
Read, Hilton S., 5407 Atlantic av., Ventnor (1)
Read, Jessie D., 519 Lenox av., Westfield (20)
Read, William T., Jr., Cooper Hospital, Camden (4)
Reading, H. Eugene, 535 E. 29th st., Paterson (16)
Reagan, Lindley B., 175 Madison av., Mt. Holly (3)
Reale, Frank P., 427 W. Seventh st., Plainfield (20)
Reale, Nicholas P., 14 Brooks Blvd., Manville (18)
Reason, John J., 612 Roosevelt av., Carteret (12)
Records, Carl J., Franklin & Sewall avs.,Cape May(5)
Reeve-Allen, Jane, 42 Gordonhurst av., U.M'ntcl'r(7)
Reeves, Ernest, 195 Lexington av., Passaic (16)
Regan, Cornelius J., Cooper Hospital, Camden (4)
Reich, Abraham L., 31 Lincoln Park, Newark (7)
Reich, Henry, 89 Lincoln Park, Newark (7)
Reich, Jerome J., 1500 N. Broad st., Hillside (20)
Reich, Mortimer, 705 Elizabeth av., Newark (7)
Reich, Samuel B., 286 Union st., Hackensack (2)
Reilly, Christopher J., 331 13th av., Newark (7)
Reilly, David F., 44 Prince st., Elizabeth (20)
Reilly, John, Jr., 222 Elizabeth av., Elizabeth (20)
Reilly, John T., 18 DeHart st., Morristown (14)

Reilly, John V., 520 Sanford av., Newark (7)
Reilly, Joseph, 600 Newton av., Oaklyn (4)
Reilly, Raymond, 8210 Fourth av., North Bergen (9)
Reilly, Thomas F., 127 Union av., Clifton (16)
Reinartz, Paul V., 11 Vista pl., Red Bank (7)
Reinfeld, Abraham G., 354 Clinton av., Newark (7)
Reinhard, Louis, 2627 Pacific av., Atlantic City (1)
Reinhardt, Warren I., 276 Springdale av., E. Or. (7)
Reinhart, Harry A., Newcomb Hospital, Vineland(6)
Reinhold, H.E., 441 W.Englewood av.,W.Engl'w'd(2)
Reinhorn, Abraham J., 597 E. 27th st., Paterson(16)
Reinkraut, Arthur D., 175 Broadway, Passaic (16)
Reisinger, Paul B., 369 W. State st., Trenton (11)
Reissman, Erwin, 31 Lincoln Park, Newark (7)
Reiter, Walter A., DeForest av., Summit (20)
Reitman, Norman,155 Livingston av.,N.Bru'sw'k(12)
Reitnauer, John S., 6 Standish ct., Tenafly (2)
Relyea, George M., 155 Hillcrest av., Summit (20)
Remondelli, Raphael E., 216 Littleton av., New'k(7)
Renna, Francis, 20 Morris av., Morristown (14)
Renner, Clara C., Blawenburg (18)
Renzulli, Francesco, 228 S. Seventh st., Newark (7)
Repici, Anthony J., 212 Haddon av., Haddonfield(4)
Repta, Stephen, 2165 Morris av., Union (20)
Resch, Henry U., 185 Liberty st., Bloomfield (7)
Resnick, Nathan, 205 Market st., Trenton (11)
Resnick, Solomon, 932 Avenue C, Bayonne (9)
Ressetar, Michael, 455 Lexington av., Clifton (16)
Restaino, Charles F., 465 Parker st., Newark (7)
Rettig, Isidor L., 36 Milford av., Newark (7)
Reyner, Daniel C., 2703 Pacific av., Atlantic City(1)
Reynolds, Donald G., 64 W. Main st., Freehold (13)
Reynolds, George G., 64 W. Main st., Freehold (13)
Reznikoff, Leon, 10 Columbia ter., Weehawken (9)
Rhoads, S. Creadick, 104 Station av., Westville (8)
Rhodes, Harry, Jr., 171 Terrace av., Hasbr'ckHts.(2)
Rhone, David S., 19 Kings Highway E.,Mt.Ephr'm(4)
Ribbans, Robert C., 63 Central av.. Newark (7)
Riccobono, Cosmo S., 334 Park av., Paterson (16)
Rich, Charles, 191 Littleton av., Newark (7)
Rich, Robert E., 191 Littleton av., Newark (7)
Richards, Ernest W., 374 DeWolf pl., Hackensack(2)
Richardson, Charles A., Closter Dock rd., Closter(2)
Richardson, Jefferson N.,101 S. Indiana av.,Atl.C.(1)
Richardson, Marvin T.,177S.Liv'gst'n av.,Liv'gst'n(7)
Richlan, Alfred, 181 Roseville av., Newark (7)
Ricketts, Henry E., 25 Shepard av., Newark (7)
Ridley, James B., 162 Engle st., Englewood (2)
Rieck, Allan, 507 S. Shore rd., Pleasantville (1)
Riegert, Louis C., 808 Kings Hwy.,Haddon Hts. (4)
Rieman, Aloysius P., 3566 Boulevard, Jersey City(9)
Riese, Jacob A., 6012 Palisade av., W. New York (9)
Riffin, Irving M., 419 Park st., Up. Montclair (7)
Rifici, Anthony L., 1210 Grand av., Asbury Park(13)
Riggs, Vincent J., 295 N. Arlington av.,E.Orange(7)
Riley, Philetus H., 181 South st., Morristown (14)
Rineberg, Irving E., 137 Liv'gston av., N.Br'sw'k(12)
Ringe, Charles L., Jr., Blair pl., Blairstown (21)
Rinzler, Elliot, 211 Roseville av., Newark (7)
Rinzler, Harry G., 127 Van Houten av., Passaic(16)
Rinzler, Harvey, 614 Main st., Toms River (15)
Riordan, John P., 40 Midland av., Arlington (9)
Rise, Wilson S., 1616 Pacific av., Atlantic City (1)
Risi, George F., 119 S. Second st., Millville (6)
Ristine, Edwin R., 300 Broadway, Camden (4)
Rita, James ., 235 S. Clinton av., Trenton (11)
Ritter, Morton D., 1616 Pacific av., Atlantic City (1)
Rizzo, Ettore G., 352 Van Houten st., Paterson (16)
Rizzolo, Edward M., 523 Union av., Belleville (7)
Robbin, Lewis, 18 Clinton pl., Newark (7)
Robbins, Charles M., 31 Lincoln Park, Newark (7)
Robbins, Eugene, 108 Glen av., Maplewood (7)
Robbins, Morris A., 39 W. Main st., Columbus (3)
Roberts, Allison H., 26 S. Ninth st., Newark (7)
Roberts, Charles, 109 S. Munn av., East Orange (7)
Roberts, Charles D., 188 Sherwood pl., Englew'd (2)
Roberts, David C., 3 Glen Oaks av., Summit (7)
Roberts, Dudley A., 124 St. Paul st., Westfield (20)
Roberts, Richard H., 18 W. Drive, Livingston (4)
Roberts, William A., 11 Park av., Caldwell (7)
Robertson, Eugene V., 17 Arl'gton av.,H'wth'ne(16)
Robertson, Euston S., 500 Belgrove dr., Arlington(7)
Robertson, Grace M., 515 W. Seventh st., Pl'nf'd(20)
Robinson, Aaron J., 1757 S. Broad st., Trenton (11)
Robinson, Douglas H., N. J. State Hosp.,Trenton(11)
Robinson, Ernest A., 149 Atkins av., Asbury P. (13)
Robinson, James W., 129 Summit av., Summit (20)
Robinson, Louis H., 31 Lincoln Park, Newark (7)
Rabinson, William A., 62 Main av., Ocean Grove(13)
Rocco, Frank, 139 Grafton av., Newark (7)
Rocco, John, 729 Summer av., Newark (7)
Rocco, Leo C., 75 Maple av., Red Bank (13)
Rodi, Louis M., 412 Bellevue av., Hammonton (1)
Rodman, E. Warren, 503 Cooper st., Beverly (3)
Roecker, Roland D., 332 Springfield av., Summit(20)
Roemer, Jacob, 591 E. 27th st., Paterson (16)
Rogers, Dorothy M., 50 Cooper st., Woodbury (8)
Rogers, Laurence H., Donnelly M. Hosp.,Tr'nt'n(11)
Roh, Robert F., 198 Clinton av., Newark (7)
Romano, Anthony M., 159 Westervelt av.,Tenafly(2)
Romano, Frank, 207 Front st., Dunellen (12)
Romano, Michael J., 2 Arlington pl., Radburn (16)
Romano, Patrick J., 310 Central av., Orange (7)
Rommer, Calman, 25 Ingraham pl., Newark (7)
Rona, Maurice, 10 Kirkpatrick st., N. Br'sw'k (12)
Rooks, Wendell H., Wyckoff (2)
Rosamilia, Ralph E., 482 N. Seventh st., Newark (7)
Rose,, F. Leland, 511 Cooper st., Camden (4)
Rose, Salvatore J., 242 Ivy ct., Orange (7)
Rose, William G., 182 Stockton st., Hightstown (11)
Roseman, Herman I., 581 Ridgewood av., Glen R.(7)
Rosen, Charles D., 115 S. Munn av., E. Orange (7)
Rosen, Charles E., 321 23rd st., Union City (9)
Rosen, Emanuel, 692 High st., Newark (7)
Rosen, Frank L., 32 Johnson av., Newark (7)
Rosen, Herbert J., 42 Hudson st., Dover (14)
Rosen, Samuel C., 205 E. Tenth st., New York C. (1)
Rosen, Sol, 214 N. Second st., Millville (6)
Rosenbauer, Howard J., 120 Clinton pl.,Hack'ns'k(2)
Rosenbaum, Samuel X., 261 Main st., W. Orange (7)
Rosenberg, Albert B., 120 Crescent av., Plainf'd (9)
Rosenberg, Alvin A., 22 High st., Morristown (14)
Rosenberg, Hyman, 318 Cooper st., Camden (4)
Rosenberg, Jacob, 692 Bergen av., Jersey City (9)
Rosenberg, L. Charles, 11 Murray st., Newark (7)
Rosenberg, Lillian M., 334 Bloomfield av.,Montcl'r(7)
Rosenberg, Louis, 1616 Pacific av., Atlantic City (1)
Rosenberg, Marvin, 174 Gregory av., Passaic (16)
Rosenberg, Norman, 10 Lincoln av.,Highland P.,(12)
Rosenblatt, Max B., 150 Westfield av., Elizabeth(20)
Rosenblatt, Sidney, 1904 Pacific av., Atlantic City(1)
Rosenfeld, Frederick, 200 E. Jersey st..Elizabeth(20)
Rosenstein, Jacob L., 568 Bergen av., Jersey City(9)
Rosenstein, Saivel L., 2120 Springf'd av.,Vauvh'l(20)
Rosenthal, Abraham, 43 Third av., Atl. Highl'ds(13)
Rosenthal, Alfred E., 79 W. 32nd st., Bayonne (9)
Rosenthal, Arnold J., 41 Renner av., Newark (7)
Rosenthal, Arthur A., 538 E. 29th st., Paterson (16)
Rosenthal, Oscar J., 54 Van Ness pl., Newark (7)
Rosiello, Louis E., 712 Wood st., Vineland (6)
Rosner, Edwin, 814 Haddon av., Collingswood (4)
Rosner, Francis, 653 Maywood av., Maywood (2)
Ross, Bernard, 30 E. Passaic st., Maywood (2)
Ross, Ira S., 190 Clinton av., Newark (7)
Ross, Peter W., 655 Main av., Passaic (16)
Rossi, Bartolomeo, 31 W. Main st., Bound Br'k (18)
Rossi, Gene, 31 W. Main st., Bound Brook (18)
Rossi, John R., 119 W. 36th st., Bayonne (9)
Rosso, John D., 194 Nassau st., Princeton (11)
Rost, Adolf S., 461 Mountainview av., Orange (7)
Roston, Mark A., 63 Hansbury av., Newark (7)
Roth, Daniel B., 836 Garrison av., Teaneck (2)
Roth, Ferdinand L., 98 S. Munn av., East Orange(7)
Roth, Samuel R., 31 Lincoln Park, Newark (7)

Rothberg, Moses, 438 59th st., West New York (9)
Rothenberg, Friedrich, 395 Ellison st., Paterson (16)
Rother, Carl, 20 48th st., Weehawken (9)
Rothfuss, C. Howard, 574 Rahway av.,W'dbr'ge(12)
Rothgesser, Jerome C., 14 Leslie st., Newark (7)
Rothhouse, Burnet, 31 Lincoln Park, Newark (7)
Rothman, Sidney, 870 Stuyvesant av., Trenton (11)
Rothschild, Carl E., 275 Grand av., Englewood (2)
Rothschild, Daniel L., 1224 Clinton av., Irvington(7)
Rothschild, Karl, 149 Livingston av., N. Br'sw'k(12)
Rotondi, Leonard J., 5 Arthur st., Belleville (7)
Rowan, Henry M., 224 W. State st., Trenton (11)
Rowen, Manuel J., 133 W. Jersey st., Elizabeth (20)
Rowland, John H., 159 New st., New Brunsw'k (12)
Rowohlt, George O., 150 E. Madison av., Dumont(2)
Roy, Bert W., 25 Hamburg av., Sussex (19)
Roy, Joseph N., 95 - 17th av., Paterson (16)
Roylance, F. Dean, Jr., St. Nicholas av., Haworth(2)
Rozett, Oscar, 19 Prospect st., Summit (20)
Rozsa, Stephen, 837 S. 11th st., Newark (7)
RuBacky, Joseph F. A., 61 Passaic av., Passaic (16)
Rubba, Russell R., 21 Horton st., Hammonton (1)
Rube, Joseph A., 145 Prospect st., Ridgewood (2)
Rubens, Otto, 153 E. Blackwell st., Dover (14)
Rubenstein, Eli, 783 Avenue C, Bayonne (9)
Rubenstein, Robert, 2758 Boulevard, Jersey City (9)
Rubin, Abraham A., 240 Holmes st., Belleville (7)
Rubin, Bernard D., 849 Avenue C, Bayonne (9)
Rubin, Jacob S., 505 Fourth av., Asbury Park (13)
Rubin, Samuel, 401 First av., Asbury Park (13)
Rubin, Sidney, 170 Hawthorne av., Newark (7)
Rubin, William, 105 Carroll pl., New Brunswick(12)
Ruby, Victor M., 325 Atlantic av., Atlantic City (1)
Ruccia, Arthur, 107 Clifton av., Newark (7)
Rucker, William C., 308 Union st., Hackensack (2)
Rudolph, John P., 108 W. Maple av., Merchantc'e(4)
Ruggieri, Pasquale, 803 Elmer st., Vineland (6)
Rullman, Walter A., 58 W. Front st., Red Bank (13)
Rumage, William T., 135 Jefferson st., Newark (7)
Rumsey, Wm. L., Jr., 1336 North av., Elizabeth (20)
Rundlett, Emilie V., 79 Prospect st., Jersey City(9)
Runnells, John E., Bonnie Burn Sana., Scotch P.(20)
Runyon, Laurence P., 80 Somerset st.,N.Br'sw'k(12)
Ruocco, William B., 416 River st., Paterson (16)
Ruoff, Andrew C., 2414 New York av., Union City(9)
Ruoff, Andrew C., III, Army (16)
Ruotolo, Andrew K., Navy (7)
Rush, Martin R., 326 Broad st., Red Bank (13)
Rushmore, Richard J., Ridgedale av., Madison (14)
Rusin, Michael, 272 Palisade av., Garfield (2)
Russell, Marie E., 583 Haddon av., Collingswood (4)
Russillo, Philip, 3432 Boulevard, Jersey City (9)
Russo. Dominic T., 49 E. Somerset st., Raritan (18)
Russomanno, Paul, 497 Mt. Prospect av., Newark(7)
Russomanno, Raymond L., 212 Clifton av.,New'k(7)
Ruttenberg, Louis, 19 Hopkins st., Woodbury (4)
Ruttenberg, Max, 303 Cooper st., Camden (4)
Ruvane, Joseph J., 921 Bergen av., Jersey City (9)
Ryan, Lawrence W. F., 922 Haddon av.,Coll'gsw'd(4)
Ryley, Harold W., 1 Lincoln pl., E. Rutherford (2)
Ryman, Merlin T., 5 Dunbar st., Chatham (14)
Rynar, Dago, 435 Second st., Lakewood (15)

ASSOCIATE MEMBERS

Randelman, Arthur H., 921 W. State st.,Trenton(11)
Ratcliffe, John W., Alps rd., R.D. 4, Paterson (16)
Raymond, Louis, 719 Park av., East Orange (7)
Reilly, Christopher T.,118A Elmw'd ter.,E.Pat's'n(16)
Reilly, Eugene, 560 Market st., Paterson (16)
Reiter, Walter, Jr., 157 Engle st., Englewood (2)
Roberts, Montague, 533 Mt. Prospect av.,Newark(7)
Robertson, Robert B., 69 Maple av., Red Bank (13)
Rogers, Edwin D., 2500 Pennington rd., Trenton(11)
Rogers, Fred B., Navy (11)
Ross, Wayne D., 100 Main st., Orange (7)
Ruppert, Ralph E., 304 S. Shore rd., Absecon (1)

S

ACTIVE MEMBERS

Sabarese, Theodore C., 122 Marsellus pl., Garfi'd (16)
Sacco, Anthony G., 2200 New York av.,Union City(9)
Sacco, Gregory E., 191 Broad st., Red Bank (13)
Sachs, Fred, 48 Warner av., Jersey City (9)
Sachs, Wilbert, 921 Bergen av., Jersey City (9)
Sackin, Stanley, 834 W. State st., Trenton (11)
Sacks-Wilner, Arthur, 225 W. State st., Trenton(11)
Sacks-Wilner, Erwin P.,225 W.State st.,Trenton(11)
Saco, Louis S., 922 Main st., Paterson (16)
Sadoff, Joseph, 504 Westminster av., Elizabeth (20)
Saffron, Morris H., 292 Paulison av., Passaic (16)
Sager, Bernard, 176 Millburn av., Millburn (7)
Sager, Harold, 19 W. 22nd st., Bayonne (9)
Sagert, Carl M., 18 Old Wood rd., Morris Pl'ns (14)
Sagi, Ellen I., 376 Elmora av., Elizabeth (20)
Sakowski, John P., 20 W. 22nd st., Bayonne (9)
Sala, Aldo W., 172 Randolph av., Clifton (16)
Saladino, Anthony J., 427 15th st., Union City (9)
Salaky, William L., 387 Neville st., Perth Amboy(12)
Salasin, Samuel L., 511 Pacific av., Atlantic City(1)
Salerno, Louis, 224 Prospect pl., Rutherford (16)
Sall, Jack, 665 Broadway, Paterson (16)
Salmon, Edward F., 50 Gifford av., Jersey City (9)
Salmon, George G.,Jr.,243 S.Harrison st.,E.Orange(7)
Salsberg, Ralph H., 23 Johnson av., Newark (7)
Salter, Kent, Valley View Sana., Paterson (16)
Saltus, Lloyd S., 100 Franklin st., Morristown (14)
Salva, Edo J., 17 W. Central blvd., Palisades Pk.(2)
Salvati, Leo H., 275 Orchard st., Westfield (20)
Salvatore, Joseph T., 324 Hamilton av., Trenton (11)
Salway, Benjamin, 321 S. Broad st., Trenton (11)
Salzman, Nathan, 714 Broadway, Paterson (16)
Salzmann, Bertold, 89 Gifford av., Jersey City (9)
Samaha, Charles, 1010 Grand av., Asbury Park(13)
Samson, Norman D., 543 Kearny av., Kearny (7)
Samuels, S. Lawrence, 1111 Park av., Plainfield (20)
Sand, Abraham B., 207 E. Union st., Burlington (3)
Sandella, Joseph F., 138 Liv'gston av.,N.Br'sw'k(12)
Sandford, Francis R., 30 Academy rd., Caldwell (7)
Sandler, Moses, 2013 Center av., Fort Lee (2)
Sandler, Samuel A., 254 Union st., Hackensack (2)
Sanfacon, Thomas A., 340 Park av., Paterson (16)
Sanford, Marcus E., 27 Ross st., Somerville (18)
Santangelo, Emil L., 313 18th av., Paterson (16)
Santangelo, Joseph A., 218 Grafton av., Newark (7)
Santor, G. Frank, 3176 Westfield av., Camden (4)
Santora, Philip J., 361 Roseville av., Newark (7)
Santoro, Anthony, 472 12th av., Paterson (16)
Santoro, Thomas A., 141 Sanford st., East Orange(7)
Saporito, Archibald R., 119 Ridge rd., N. Arl'gton(7)
Saracino, Frank J., 107 Grand pl., Arlington (7)
Saradarian, Albert V., 921 Bergen av.,Jersey City(9)
Sarajian, Aram M., 88 W. Forest av.,W.Englew'd(2)
Sargent, Eva R., 121 Myrtle av., N. Plainfield (18)
Sarla, Michael, 55 Hudson st., Hackensack (2)
Sarno, Anthony, 130 Park st., Newark (7)
Sarokhan, Joseph, 771 Madison av., Paterson (16)
Saseen, Charles A., 60 S. Delancey pl., Atl. City (1)

Saslow, Benjamin I., 102 Shanley av., Newark (7)
Saslow, Stella K., 102 Shanley av., Newark (7)
Sasso, Albert, 533 Mt. Prospect av., Newark (7)
Satulsky, Emanuel M., 737 N. Broad st.,Elizab'h(20)
Sauerbrun, Bertram J. L., 681 Newark av.,Eliz.(20)
Savage, Eric D., 163 Kilburn pl., South Orange (7)
Savel, Lewis E., 73 Shanley av., Newark (7)
Sawyer, Blackwell, 109 Washington st., Toms R.(15)
Sbarra, Francesco C.N., 189 Roseville av.,Newark(7)
Scala, H. Albert, 212 Garfield av., Jersey City (9)
Scalera, John F., 101 Sampton av., S. Plainfield (12)
Scales, Harold L., 805 Red rd., Teaneck (2)
Scalessa, Mario F. T., 209 Ashland rd., Summit (20)
Scanlan, D. Ward, 15 S. Illinois av.,Atlantic City(1)
Scanlan, David B., 1 S. Oxford av., Ventnor (1)
Scasserra, Benedict B., 164 Nassau st.,Princeton(11)
Scerbo, Ernest, 33-14 Broadway, Warren Point (2)
Schaaf, Royal A., 413 Mt. Prospect av., Newark (7)
Schaaf, Royal S., 425 Mt. Prospect av., Newark (7)
Schaberg, Frank J., 263 Anderson st.,Hackensack(2)
Schaefer, Kenneth F., 763 Broad st., Newark (7)
Schaefer, Phyllis A. D., 111 E. Front st.,Plainfield(20)
Schaeffer, Alan M., 229 Willow st., Delanco (3)
Schafer, Marguerite A.,298 Diam'd Br.av.,H'th'ne(16)
Schaffer, Barney, 10 Van Reyper pl., Belleville (7)
Schaffer, Nathan, 172 S. Arlington av., E. Orange(7)
Schall, Reuben E., Seventh & Elm sts., Camden (4)
Schapiro, Morris, 800 Avenue C, Bayonne (9)
Schectman, Vera, 97 Lyons av., Newark (7)
Scheer, Eli, 885 Queen Anne rd., Teaneck (2)
Scheffler, Welhelm A. H., 511 Cooper st., Camden (4)
Schefrin, Alexander E., 235 Lexington av.,Pass'c(16)
Schelp. James R., II, 343 S.Pleasant av.,Ridgew'd(16)
Schellenger, Edward A. Y., 429 Cooper st.,Camden(4)
Scheller, George A., 65 Old Short Hillsrd.,Short H.(7)
Schenk, Joseph R., 1177 Park av., Plainfield (20)
Schenker, Benjamin N., 246 Fifth st., Jersey Clty(9)
Schenker, Israel N., 3348 Blvd., Jersey City (9)
Schenker, Sarah S., 1009 Garden st., Hoboken (9)
Schept, Samuel S., 523 37th st., Union City (9)
Scher, Maurice A., 137 Lyons av., Newark (7)
Scheuerman, Walter G., 308 W. State st.,Trenton(11)
Schildkraut, Jacob M., 170 W. State st., Trenton (11)
Schiller, Max, 425 W. 45th st., New York, N. Y. (12)
Schiller, Rosa O., 523 Westfield av., Elizabeth (20)
Schilling, Anthony B., 727 Jefferson av., Elizab'h(20)
Schillinger, Raphael, 858 Summit av., Westfield (20)
Schimenti, Matteo, 1883 Boulevard, Jersey City (9)
Schirmer, William, 428 S. Broad st., Elizabeth (20)
Schisler, Milton M., 501 W. Second st., Florence (3)
Schleifer, Arnold, 10-04 River rd., Fair Lawn (16)
Schlein, August, 707 Park av., Hoboken (9)
Schlein, David, 812 N. Wood av., Linden (20)
Schlossbach, Theodore, 94 S. Main st., Ocean Gr.(13)
Schlossberg, Ezra, 156 Amsterdam av., Passaic (16)
Schmaier, Sica L., 607 Fifth av., Belmar (13)
Schmidt, Albert F., 321 Washington Blvd.,S.Girt(13)
Schmidt, Clifford M., 81 Main st., Newton (19)
Schmidt, Walter W., 386 Palisade av., Cliffside P.(2)
Schmukler, Jacob, 16 Johnson av., Newark (7)
Schnee, Isadore M., 586 E. 25th st., Paterson (16)
Schneider, Clinton R., Cedar av., Tuckerton (15)
Schneider, Harry M., 89 Gifford av., Jersey City (9)
Schneider, Leo, 171 Ferry st., Newark (7)
Schneider, Leonard, 616 Brinley av., Bradley B. (13)
Schneider, Louis, 874 S. 13th st., Newark (7)
Schneider, Louis A., 412 61st st., West New York(9)
Schoenau, Carl W., 93 Union st., Montclair (7)
Schotland, Clement E., 31 Lincoln Park, Newark (7)
Schrack, Helen F., 216 N. Fifth st., Camden (4)
Schram, William S., 19A Brookdale Gar.,Bloomf'd(7)
Schramm, Joseph A., 572 High st., Newark (7)
Schreck, Harry, 192 Roseville av., Newark (7)
Schretzmann, R.C.,1289 Trafalgar st.,W.Englew'd(2)
Schubert, Roy R., 466 Park av., Paterson (16)
Schuchner, William F., 550½ Jersey av.,Jer. City(9)
Schuck, Traugott J., 58 Ninth st., Hoboken (9)
Schulman, Jesse, 111 Forest av., Lakewood (15)
Schulsinger, Samuel, 80 Clinton av., Newark (7)
Schulte, Herbert A., 701 Clinton av., Newark (7)
Schults, Anna R., 25 Abington av., Newark (7)
Schultz, Augustin M., 379 Union av., Paterson (16)
Schultz, Irving A., 31-11 Broadway, Warren Pt. (16)
Schultz, Leo P., 232 Franklin Tnp., Allendale (2)
Schumacher Evelyn L., 32 Maple av., Morrist'n (14)
Schurman, Francis H. C., 35 Smull av., Caldwell (7)
Schwager, Alfred J., 629 W. State st., Trenton (11)
Schwartz, Albert, 280 Hobart st., Perth Amboy (12)
Schwartz, Harold, 201 Lyons av., Newark (7)
Schwartz, Harold B.,3906 Bergenline av.,Union C.(9)
Schwartz, Henry C., Raritan av., Atco (4)
Schwartz, Jacob R., 12-35 River rd., Fair Lawn (16)
Schwartz, Leo, 301 Harrison st., Passaic (16)
Schwartz, Leon J., 88 Park av., Rutherford (2)
Schwartz, Lewis, 2695 Boulevard, Jersey City (9)
Schwartz, Mortimer L., 636 Stuyves't av.,Irv'gt'n(7)
Schwartz, Samuel H., 916 Park av., Plainfield (20)
Schwartz, William, 224 Lexington av., Passaic (16)
Schwartzberg, Fred'r'k I., 522 Broadw'y,Pat'rs'n(16)
Schwarz, Berthold T.D., 2789 Boulevard, Jer. City(9)
Schwarz, Henry J., 8534 Boulevard, N. Bergen (9)
Schwarz, John, 83 Highwood ter., Weehawken (9)
Schwarz, Julianna L., 115 Prospect st., Passaic (16)
Schwarz, Leopold, 237 E. Pine av., Wildwood (5)
Schwarzkopf, George C., 2901 Pacific av.,Atl.City(1)
Schweizer, Roman G., 60 North av., Elizabeth (20)
Sciana, Edward A., 74 Bellevue av., E. Paterson (2)
Sciarrillo, Louis F., 105 Newark st., Hoboken (9)
Scielzo, Nicholas F., 369 Park av., Paterson (16)
Scillieri, John, 660 Broadway, Paterson (16)
Sciorsci, Edward F., 609 Bloomfield st., Hoboken (9)
Scionsci, Mario, 609 Bloomfield st., Hoboken (9)
Scolamiero, Pasquale, 435 Third av., Newark (7)
Scott, Frederick J., 1 Oak st., Franklin (19)
Scott, Harold R., 68 Central av., Orange (7)
Scott, John J., 6 Zerman pl., Weehawken (9)
Scott, Kenneth H.,Jr., 147 E.Seventh st.,Plainf'd(20)
Scott, Leonard G., 496 E. Commerce st.,Bridgeton(6)
Scott, Samuel G., 141 Bergen av., Jersey City (9)
Scovern, Louis, 299 Main av., Passaic (16)
Scranton, Charles W.,59 Washington st.,E.Orange(7)
Scudese, Vincent A., 440 Parker st., Newark (7)
Scullion, Arthur A., 460 Anderson av.,Cliffside P.,(2)
Sealey, Henry J., 79 Washington av., Dumont (2)
Seda-Morales, Ruben S., 31 East av., Woodtown(17)
Seely, Richard H., 8 Wilde av., Drexel Hill, Pa. (4)
Seely, Roy B., 104 N. Clinton av., Trenton (11)
Segard, Christian P., 204 Glenwood av., Leonia (2)
Seiberling, Joseph D., 225 Redman av., Had'nfi'd (4)
Seidel, Reginald F., 164 Maple st., Englewood (2)
Seidler, Victor B., 16 Plymouth st., Montclair (7)
Seidman, Edwin A., 580 High st., Newark (7)
Seidmon, Edward E., 221 W. Seventh st.,Plainf'd(20)
Seifert, Edwin A., 415 Ridgewood av., Glen Ridge(7)
Seiler, Benjamin, 580 Palisade av., Cliffside Park(2)
Seitzick,Robbins, H. E., 723 W. State st.,Trenton(11)
Sekerak, Albert J., 984 S. Broad st., Trenton (11)
Selecky, Medard A., 35 S. Main st., Allentown (11)
Seligmann, Fred S., 501 32nd st., Union City (9)
Selikoff, Irving, 707 Broadway, Paterson (16)
Sell, Frederick W., 167 W. Emerson av.,Rahway(20)
Sellitto, Anthony M., 115 Connett pl., S. Orange (7)
Sena, Dominic R., 1302 Asturia av., Coral G.,Fla.(20)
Sender, Fannie, 193 Main st., South River (12)
Senerchia, Fred F., Jr., 457 Union av., Elizabeth(20)
Serri, William S., 447 Kings Hwy., Swedesboro (8)
Seto, Stanford P. T., Main st., Blackwood (4)
Sevringhaus, Elmer L., Rensselaer rd.,Ess'xFells(7)
Sewall, Arthur D., 52 N. Pearl st., Bridgeton (6)
Seward, William H., 188 S. Essex av., Orange (7)
Sewell, Stephen, 320 Passaic av., Spring Lake (13)
Sexton, Edward V., 936 Queen Anne rd., Teaneck (2)
Seybold, Arthur D., 1080 Rahway rd., Plainfield (20)
Seymour, Edward T., 55 Hillside av., Tenafly (2)

Seymour, George A., 253 Orchard st., Elizabeth (20)
Shack, David N., 712 Clinton av., Newark (7)
Shaen, Edward, 701 N. Sixth st., Camden (4)
Shafer, Albert H., 405 Cooper st., Camden (4)
Shaffrey, Thomas A., 658 Grove st., Irvington (7)
Shaner, Ralph D., 94 Hillside av., Nutley (7)
Shangle, Milton A., 34 Prince st., Elizabeth (20)
Shangold, Jack E., 280 Hobart st., P. Amboy (12)
Shanik, Morton J., 55 W. Blackwell st., Dover (14)
Shanik, William, 601 Grand av., Asbury Park (13)
Shapiro, Albert B., 103 N. East av., Vineland (6)
Shapiro, Edward E., 750 Avenue C, Bayonne (9)
Shapiro, Irving, 31 Lincoln Park, Newark (7)
Shapiro, Joseph S., 314 Fair st., Paterson (16)
Shapiro, Louis, 146 Broad st., Newark (7)
Shapiro, Louis G., 375 Broadway, Paterson (16)
Shapiro, Marvin I., 1243 Stuyvesant av., Union (20).
Shapiro, Max, 66 Elmora av., Elizabeth (20)
Shapiro, Nathaniel J., 1201 Palisade av., Union C.(9)
Shapiro, Ralph N., 668 Clinton av., Newark (7)
Shapiro, Samuel A., 209 Avon av., Newark (7)
Shapiro, Saul J., 50 E. Lincoln av., Atl. Highl'ds(13)
Shapiro, Sydney H., 334 Union av., Irvington (7)
Sharbaugh, George B., 212 W. State st., Trenton(11)
Sharlin, Herbert S., 35 Pangborn pl., Hackensack(2)
Sharp, Charles E., Main st., Port Norris (6)
Shaul, Frederick G., 10 Washington st., Bloomf'd(7)
Shavelson, Irving C., 1616 Pacific av., Atl. City (1)
Shaw, Ernest B., 811 Collings av., W. Collingsw'd(4)
Shaw, John J., 31 Lincoln Park, Newark (7)
Shaw, Ned, 514 Cooper st., Camden (4)
Shayevitz, Abraham S., 102 Main st.,South River(12)
Sheaffer, Clinton P., 241 Kings Hwy.,E.,Had'nf'd (4)
Shear, M. Murray, 1158 E. State st., Trenton (11)
Schechner, Isadore, 91 Third av., Newark (7)
Shechtman, Abraham, 37 Grove st., Passaic (16)
Sheedy, John J., 121 E. Seventh st., Plainfield (20)
Sheehan, Daniel C., 535 Sanford av., Newark (7)
Sheeran, Vincent J., 101 Bentley av., Jersey City(9)
Sheets, Cecil C., 213 W. Broad st., Paulsboro (8)
Sheffield, Doreen R. C., R. D. 1, Oxford (21)
Sheft, Matthew J., 112 Lexington av., Passaic (16)
Shemeley, William G., Jr., 7 Haddon av., Camden(4)
Shenfeld, Isaac, 4806 Atlantic av., Ventnor (1)
Shepard, Adele C., 102 Westfield av., Elizabeth (20)
Shepard, Morse A., 17 N. 18th st., Kenilworth (20)
Shepp, Murray, 192 W. State st., Trenton (11)
Sheppard, Alfred G., 309 Broad st., Elmer (6)
Sheppard, Muse A., Broad & Penn sts., Elmer (6)
Sheppard, Thomas S., 21 E. Vine st., Millville (6)
Sherk, A. Lincoln, 2647 Westfield av., Camden (4)
Sherman, A. Russell, 671 Broad st., Newark (7)
Sherman, Abraham, 68 Clifton ter., Weehawken (9)
Sherman, Arthur E., 70 Woodland rd.,Maplewood(7)
Sherman, Elbert S., 671 Broad st., Newark (7)
Sherman, Fuller G., 204 Delaware st., Woodbury (8)
Sherman, W. Edgar, 7 Livingston av.,N.Br'sw'k(12)
Shershin, Peter, Chittenden rd., Clifton (16)
Shevitz, David M., 212 Grand av., Hackettstown(21)
Shier, Julius M., 585 Main av., Passaic (16)
Shill, Benjamin, 31 Lincoln Park, Newark (7)
Shinefeld, Maurice A., 675 Broadway, Paterson (16)
Shipman, James S., 514 Cooper st., Camden (4)
Shipman, Robert T., 907 Summit av., Jersey City(9)
Shipps, Hammell P., 719 Cooper st., Camden (4)
Shivers, Charles H. deT., 121 S. Illinois av.,Atl.C.(1)
Shlionsky, Herman, 47 S. Park st., Montclair (7)
Shook, Benjamin E., 284 Bergen av., Jersey City(9)
Shope, Edward P., 807 Wilson Bldg., Camden (4)
Shor, David M., 32 S. Munn av., East Orange (7)
Shpetner, Aaron F., 29A Boulevard, E. Paterson(16)
Shreehan, Hubert F., 615 Summer av., Newark (7)
Shull, Elliott C., 517 Cooper st., Camden (4)
Shull, John V., 184 Kearny av., Perth Amboy (12)
Shulman, Abraham, 528 E. 29th st., Paterson (16)
Shulman, Irving, 2157 Boulevard, Jersey City (9)
Shulman, Murray W., 913 S. 20th st., Newark (7)
Shulman, Nathan L., 538 45th st., Union City (9)
Shulman, Philip, 308 Chestnut st., Roselle (20)
Shuster, Samuel A., 405 Pacific av., Atlantic City(1)
Shuttleworth, John E.,7015Deerf'd rd.,Pikesv'e,Md.(4)
Sica, L. Samuel, 431 E. State st., Trenton (11)
Siciliano, Thomas, 6 Clinton av., Clifton (16)
Sickel, Emanuel M., 318 Forest av., Lakewood (15)
Sieber, Isaac G., 204 Merchant st., Audubon (4)
Siedenberg, Rich'd H., Esso Stand. Oil Co.,Bay'ne(20)
Siegel, Jack G., 32 Johnson av., Newark (7)
Siegel, Jacob W., 96 S. Tenth st., Newark (7)
Siegel, Leo, 234 Roseville av., Newark (7)
Siegel, Lester, 180 Belmont av., Jersey City (9)
Siegel, Ralph E., 121 Market st., Perth Amboy (12)
Siegel, Robert, 96 S. Tenth st., Newark (7)
Siegel, Sidney L., 227 N. Second st., Millville (6)
Siegel, Simeon, 167 Washington av., Dumont (2)
Siegel, Victor, 43 E. Front st., Red Bank (13)
Siegler, Julius, 646 Bergen av., Jersey City (9)
Siemion, Theophilis R., 1005 Br'sw'k av.,Trent'n(11)
Sigman, George, 254 Union st., Jersey City (9)
Silber, Irving M., 94 Schureman st., N. Br'nsw'k(12)
Silberner, Herbert B., 99 Hillside av., Newark (7)
Silberstein, Freder'k H.,4711Westf'd av.,Penns'k'n(4)
Silich, Robert L., 875 Boulevard, E., Weehawken (9)
Silk, Morton J., 374 Speedwell av., Morris Plains(14)
Silon, Milton R., 907 Washington st., Hoboken (9)
Silver, Albert M., 89 Lincoln Park, Newark (7)
Silver, E. Drew, 136 Stockton st., Hightstown (11)
Silver, Michael W., 718 E. 25th st., Paterson (16)
Silvera, Salomon, 921 Bergen av., Jersey City (9)
Silverman, Irving A., 164 Randolph av., Clifton (16)
Silverman, R. Louis, 21 W. Main st., Penns Gr., (17)
Silverman, S. Andrew, 860 S. 11th st., Newark (7)
Silverman, Theodore M.,105 Elmora av.,Elizab'h(20)
Silverstein, Benj. J., 32 Hillside av., Newark (7)
Silverstein, Jacob M., 73 Main st., Millburn (7)
Silverstein, Max, 65 Sydney av., Deal (13)
Simeone, Peter A., 138 Clerk st., Jersey City (9)
Simmons, Albert V., 720 Prospect st., Maplewood(7)
Simms, George F., 541 Page av., Lyndhurst (7)
Simon, Franklin, 89 Lincoln Park, Newark (7)
Simon, Henry, 140 Farragut av., Vallijo, Cal. (7)
Simon, Ludwig L., 29 Hillside av., Newark (7)
Simon, Philip H., 174 Columbia av., Passaic (16)
Simonds, William R., 245 E. Front st., Plainfield (20)
Simpson, David B., 9 East 35th st., Bayonne (9)
Simpson, Ross J., 694 Boulevard, Bayonne (9)
Sims, Eugene R., 27 S. Grove st., East Orange (7)
Sims, Richard V., Jr., 31 Morris av., Summit (20)
Sinderbrand, Robert E., 344 Phila. av., E. Harb'r (1)
Sinexon, Henry L., 36 W. Broad st., Paulsboro (8)
Singer, Marie J., 139 E. Madison av.. Dumont (2)
Singer, Max, 147 Johnson av., Newark (7)
Singer, Sina S., 3443 Boulevard, Jersey City (9)
Siniscalco, Salvatore, 801 S. Fourth st., Camden (4)
Sinkinson, Charles D.,Jr., 1616 Pacific av.,Atl.City(1)
Sinnott, Gerald W., Medical Center, Jersey City (9)
Sinnott, John, Jr., Rumson rd., Rumson (13)
Sirken, Charles, 887 Summit av., Jersey City (9)
Sirotta, E. Bernard, 115 W. Broad st., Paulsboro (8)
Siss, Alfred A., 198 Haledon av., Prospect Park (16)
Sisson, Nelson W., 144 Harrison st., East Orange(7)
Sivolella, Nicholas W., 245 Clifton av., Newark (7)
Siwek, Stanley, 428 Central av., Harrison (7)
Sklar, S. Harvey, 647 Anderson av., Cliffside Pk.(2)
Skrypski, Joseph M., 2756 Boulevard. Jersey City(9)
Skwirsky, Joseph, 37 Randolph pl., Newark (7)
Skyer, Joseph, 3400 Federal st., Camden (4)
Skyer, Roslyn P., 3400 Federal st., Camden (4)
Slabey, Evelyne L., 1000 Anderson av., Palisade (2)
Slavin, Paul, 31 Lincoln Park, Newark (7)
Sloan, Samuel L., 182 Belmont av., Paterson (16)
Sloane, Milton B., 128 W. Hudson av., Englew'd (2)
Slobodien, Benjamin F., 233 High st., P. Amboy (12)
Sly, John L., 382 Springfield av., Summit (20)
Small, Leon I., 250 Millburn av., Millburn (7)

Small, Louis, 101 Prospect st., Passaic (16)
Smalley, Sara D., 530 Clifton av.. Newark (7)
Smalzried, Elmer W., 69 Woodland av., E.Orange(7)
Smigel, Joseph, Pinehaven Nurs'g Home,Bayv'e(15)
Smith, Alan L., 32 Washington st., East Orange (7)
Smith, B. Earl, 1017 Greenwood av., Trenton (11)
Smith, Bertram H., 1000 Kings Hwy., Had'n Hts.(4)
Smith, Charles H., 51 Livingston av.,N.Brunsw'k(12)
Smith, Christopher A., 43 Glen Ridge Pkw.,G.R'ge(7)
Smith, DeWitt H., 245 Nassau st., Princeton (11)
Smith, Ellis L., Essex Co. Iso. Hosp., Belleville (7)
Smith, Elroy W., 309 E. DeLido dr.,Miami B.,Fla.(16)
Smith, Harold W., 179 Lincoln av., Orange (7)
Smith, Henry G., Essex Co Hosp., Cedar Grove (7)
Smith, Herman, 306 Bates st., Phillipsburg (21)
Smith, Ivan B., Georges rd., Dayton (12)
Smith, J. James, 611 N. Broad st., Elizabeth (20)
Smith, J. Meredith, 198 Valley rd., Montclair (7)
Smith, John A., 106 Main st., South River (12)
Smith, Joseph A., N.J. Sanatorium,Glen Gardn'r(10)
Smith, Leon A., 655 Main av., Passaic (16)
Smith, Leonard H., 32 Washington st., E. Orange(7)
Smith, Marcia V., 821 Wesley av., Ocean City (5)
Smith, Marshall, 62 Bayard st., N. Brunswick (12)
Smith, Meyer, 14 Webster av., Jersey City (9)
Smith, Nehemiah E., 29 Bennett rd., Englewood (2)
Smith, Percy L., W. Afton av.. Yardley, Pa. (11)
Smith, Sydney F., 402 Raritan av., Highland Pk.(12)
Smith, Thayer A., 17 Forest dr., Short Hills (7)
Smolev, Joseph M., 285 Lexington av., Passaic (16)
Snagg, William T., 719 Cooper st., Camden (4)
Snape, William J., 573 Stevens st., Camden (4)
Snedecor, Spencer T., 210 Main st., Hackensack (2)
Snegireff, Leonid S.,55 Shattuck st., Boston,Mass.(11)
Snell, Philip, 217 Paulison av., Passaic (16)
Snyder, Gerald W., Box 52, Greystone Park (14)
Snyder, Howard P., 610 Salem av., Elizabeth (20)
Snyder, W. Jay, 74 Columbia ter., Wehawken (9)
Sobel, I. Jerome, 136 Broadway, Passaic (16)
Sobin, Julius, 190 Clinton av., Newark (7)
Sobol, Betty M., 396 N. Arl'gton av., East Orange(7)
Sobol, Herman, 205 Roseville av., Newark (7)
Sochacki, Alexander, 1478 Mt.Ephraim av.,C'md'n(4)
Sofman, Archie, P. O. Box 494, Metuchen (7)
Sokoloff, Oscar J., 69 Paterson st., N. Brunswick(12)
Solk, Arthur G., 47 Lincoln Park, Newark (7)
Sollami, William R., 2331 S. Broad st., Trenton (11)
Solomon, Harold, 79 Shanley av., Newark (7)
Solomon, Louis, 7 Tonnele av., Jersey City (9)
Solworth, Lee, 309 Engle st., Englewood (2)
Somberg, Harold, 31 Lincoln Park, Newark (7)
Somers, Fred L., 144 Harrison st., East Orange (7)
Somers, Williard H., 157 Engle st., Englewood (2)
Sommer, George N. J., 120 W. State st., Trenton(11)
Sommer, George N.J., Jr.,120 W. State st.,Trent'n(11)
Sordill, Anthony, 123 Herning av., Cranford (20)
Sorett, Joseph, 299 Broadway, Newark (7)
Sosnow, Louis M., 51 Central av., Hillsdale (2)
Spaldo, John L., 32 Grove st., Somerville (18)
Spallone, Joseph C., 123 Mt. Prospect av.,Newark(7)
Spangler, Ford C., Pointers, Salem (17)
Spano, Frank, 320 47th st., Union City (9)
Sparks, Paul R., 102 W. Broad st., Burlington (3)
Sparks, Spurgeon, Jr., 21 Oakwood av., Orange (7)
Spath, William H., 722 Hudson st., Hoboken (9)
Speer, Charles A., 19 Holly st., Cranford (20)
Spence, Harold G., 26 Badeau av., Summit (20)
Spencer, Alvan, 395 W. Blackwell st., Dover (14)
Spencer, Ira T., 152 Main st., Woodbridge (12)
Spencer, James H., 49 High st., Newton (19)
Sperber, Thomas J., 714 Cedar lane, Teaneck (2)
Sperling, Irving L., 32 Johnson av., Newark (7)
Sperling, Walter, 29 Oxford st., Montclair (7)
Sperry, Robert, 1500 46th st., North Bergen (9)
Spevack, Max, 536 Market st., Gloucester (4)
Spiegelglass, Abraham B., 417 Main st.,Hack'ns'k(2)
Spinner, Samuel L., 15 Third st., Elizabeth (7)
Spinosa, William J., 201 Littleton av., Newark (7)
Spirito, Michael W., 219 S. Broad st., Elizabeth (20)
Spitzhoff, Frederick M., Army (14)
Spivack, David, 315 W. Jersey st., Elizabeth (20)
Spivack, Seymour E., 405 Chestnut st., Roselle (20)
Spohn, Eugene L.,16 Riv'rt'n dr.,S.Francisco,Calif.(9)
Sporer, Andrew, 707 Broadway, Paterson (16)
Spradley, Jeems B., E. School lane, Yardley, Pa. (11)
Sprague, Edward W., 86 Washington st., New'k (7)
Spranz, William S., 546 Oradell av., Oradell (2)
Spritzer, Theodore D.,102 S.Wash'gt'n av.,Dun'l'n(12)
Spurgeon, Chilton E., 19 Church st., Newton (19)
Spurgeon, Dorsett L., 19 Church st., Newton (19)
Staehle, Richard H., 366 S. Orange av., S. Orange(7)
Stage, Earl DeW., 36 Maple av., Morristown (14)
Stahl, Alfred, 160 Lincoln av., Newark (7)
Stahl, Charles, 659 Sanford av., Newark (7)
Staknevich, John H., 309 Myrtle av., Irvington (7)
Stamps, G. Ruffin, 1616 Pacific av., Atlantic City (1)
Stanley, Thomas A., 77 Beech st., East Orange (7)
Stark, Jacob, 645 Broadway, Paterson (16)
Starr, Benjamin, 70 Sherman pl., Jersey City (9)
Starr, Eli, 611 79th st., North Bergen (9)
Stassi, Anthony, 481 Passaic av., Lodi (2)
Statile, Pasquale A., 598 Pavonia av., Jersey City (9)
Statman, Arthur J., 17 Leslie st., Newark (7)
Statman, Bernhardt, 849 S. 12th st., Newark (7)
Staub, E. Milton, 505 E. Broad st., Westfield (20)
Staub, Wilfred A., 505 E. Broad st., Westfield (20)
Stearns, Thornton, 312 S. Harrison st., E. Orange(7)
Steel, William A., Beesley's Point (5)
Stefansin, Frank, 1601 Boulevard, North Bergen(9)
Steffens, Charles T., 612 Park av., Plainfield (20)
Stein, Adalbert, 600 80th st., North Bergen (9)
Stein, Emil, 607 Park av., Elizabeth (20)
Stein, Frederick, 620 Ridge rd., Lyndhurst (2)
Stein, Harold M., 227 W. Broadway, Paterson (16)
Stein, Harriet N., 620 Ridge rd., Lyndhurst (16)
Stein, Isadore, 817 N. Broad st., Elizabeth (20)
Stein, Jacob M., 68 Columbia ter., Weehawken (9)
Stein, Joseph M., 414 Cooper st., Camden (4)
Stein, Louis A., 226 W. State st., Trenton (11)
Stein, Martin H., 60 Elmora av., Elizabeth (20)
Stein, William, 177 Livingston av., N. Brunsw'k(12)
Steinberg, Werner, 35 Gesner st., Linden (20)
Steiner, Edwin, 31 Lincoln Park, Newark (7)
Steiner, Herbert, 650 Stuyvesant av., Irvington (7)
Steitz, John A., 200 Garden st., Mt. Holly (3)
Stellar, Stanley, 660 Broadway, Paterson (16)
Steller, Frederick C., 220 St. Clair av., Spring L.(13)
Stephenson, Daniel H., 8th & Market sts.,Camden(4)
Stephenson, Gordon A., 145 Summit av., Summit(20)
Stern, David A., 127 Lyons av., Newark (7)
Stern, Max E., 2 Milford av., Newark (7)
Stern, Morris H., 471 Clifton av., Clifton (16)
Stern, Morton M., 24 Girard pl., Newark (7)
Stetser, Leland M., 414 Cooper st., Camden (4)
Steuart, David F. R., 9 Armstrong rd., Morrist'n(14)
Stevens, Donald J., 42 Chancellor av., Newark (7)
Stevens, Merton H., 58 S. Maple av., East Orange(7)
Stevenson, G. McKay, 129 Summit av., Summit (20)
Stevenson, George S., W. Front st., Red Bank (13)
Stevenson, James A., 545 Kearny av., Kearny (9)
Stewart, Irving J., 529 Kings Hwy., Swedesboro (8)
Stewart, Robert G., 79 Midland av., Montclair (7)
Stewart, Sloan G., 43 S. North Carolina-av.,Atl.C.(1)
Stewart, Walter B., 8 N. Tallahassee av., Atl.City(1)
Stewart, W.H.,Burdett Tomlin H.,Cape May Ct.H.(5)
Stier, Howard W., 129 Prospect st., Passaic (16)
Stiles, C. Campbell, 713 Park av., East Orange (7)
Stockfisch, Robert H., 3637 Boulevard,Jersey City(9)
Stoddard, Gordon V., 96 Glenwood av., E. Orange (7)
Stokes, Anthony T., 819 First st., Secaucus (9)
Stokes, Donald E., 120 Prospect st., S. Orange (7)
Stokes, James S., 40 Center av., Little Falls (16)
Stokes, S. Emlen, 129 Chester av., Moorestown (3)
Stoll, George F., 330 Washington av., Belleville (7)

Stolow, Alan A. J., 235 Grove st., Somerville (18)
Stoltz, Raymond R., 23 Passaic av., Passaic (16)
Stone, Frank P., 234 Fairmount av., Laurel Spr.(4)
Stone, Russell B., 56 Summit av., Phillipsburg (21)
Stoner, William H., 2 Broad st., Bloomfield (7)
Storaci, Frank S., 715 Hamilton av., Trenton (11)
Stouter, Francis L., 661 E. 18th st., Paterson (16)
Strack, Vincent J., 1072 S. Orange av., Newark (7)
Strade, Henry, 113 N. 13th st., Newark (7)
Strahan, Frank G., 473 Broadway, Long Branch(13)
Straub, Herbert H., 242 Springdale av.,E. Orange(7)
Straus, Frederick W., 2708 Westfield av., Camden(4)
Straus, Max, 87 Harrison pl., Irvington (7)
Straus, Walter, 1239 Greenwood av., Trenton (11)
Strauss, Arthur, 130 Pavilion av., Long Branch (13)
Strauss, Frederick, 845 S. 12th st., Newark (7)
Strauss, Max, 190 Clinton av., Newark (7)
Strauss, William T.,Jr., Childs rd.,Bask'g Ridge(14)
Strazza, John A., 183 Broad st., Bloomfield (7)
Streen, Morris E., 908 Bergen st., Newark (7)
Strelinger, Alexander, 650 N. Broad st.,Elizabeth(20)
Strenski, John, 330 Fairview st., Riverside (3)
Strom, Abraham, 410 W. Seventh st., Plainfield (20)
Strully, Leonard V., 660 Broadway, Paterson (16)
Stuart, J. Earle, 920 E. Front st., Plainfield (20)
Stuart, William C., 1 Newark st., Hoboken (9)
Sturchio, Eugenio, 178 Mt. Prospect av., Newark (7)
Sturr, Robert P., Jr., Army (4)
Stybel, Joseph, 507 Park av., Plainfield (20)
Subin, Harry, 2 S. Somerset av., Ventnor (1)
Sucoff, Moses C., 158 Hamilton av., Passaic (16)
Suermann, John F., 2200 Palisade av.,Weehawken(9)
Suffness, Gustave, 970 Park av., Elizabeth (20)
Sufrin, Emanuel 2656 Baird Blvd., Camden (4)
Sullivan, Charles J., 57 Paterson st., N.Brunsw'k(12)
Sullivan, Claude C., Jr., 201 S. Logan av.,Audubon(4)
Sullivan, Cornelius H.,1Washington av.,Morrist'n(14)
Sullivan, John A., 764 Queen Anne rd., Teaneck (2)
Sullivan, William M., Jr., 43 Passaic av., Passaic(16)
Sulouff, D. Blair, 3 Community pl., Morristown (14)
Summerill, Garnett, 330 Cooper st., Camden (4)
Summers, Alfred D., 71 Palmer sq., Princeton (11)
Summey, Thomas J., 800 Golf View rd.,Moorest'n(3)
Surgent, George W.,1074 Van Houten av.,Clifton(16)
Susinno, Anthony M., 29 Roff av., Palisades Pk. (2)
Sussman, Harold, 901 Washington st., Hoboken (9)
Sussman, Irvin, 241 E. Commerce st., Bridgeton (6)
Suter, Harry F., 49 W. Main st., Penns Grove (17)
Sutnick, Theodore B., 25 Richey pl., Trenton (11)
Sutton, Joseph G., Essex Co. Hosp., Cedar Grove (7)
Svenson, Sven E., New'k Pompton Tpk.,P'pt'n Pl.(7)
Swain, Richard D., Jr., 211 Roseville av., Newark(7)
Sweeley, William J., 17 Smull av., Caldwell (7)
Sweeney, Ralph E., Army (20)
Swern, Nathan, 399 W. State st., Trenton (11)
Swiecicki, Martin E., 9 Second av., Hadd'n Hts.(4)
Swiney, Merrill A., III, 325 Avenue C, Bayonne (9)
Symes, Earl R., 544 Belgrove dr., Kearny (7)
Szafir, Paul, Veterans Administration, Lyons (16)
Szelewa, Edward S., 87 Stuyvesant av., Newark (7)
Szivos, Louis A., 160 Glenwood av., East Orange (7)
Szold, Norman F., 701 Princeton av., Lakewood (15)
Szot, Alexander, 747 Ridge rd., Lyndhurst (2)
Szuch, Nicholas, 159 Main st., South River (12)
Szymanski, John J., 616 Main av., Passaic (16)

ASSOCIATE MEMBERS

Sabety, Adrian M., 26 N. Mountain av., Montclair(7)
Saigh, Raymond, 174 Ivy Lane, Teaneck (2)
Sakson, John, 117 Centre st., Trenton (11)
Sargent, Harold J., Route 23, Newfoundland (16)
Sawchak, Walter G., 540 Parkway av., Trenton (11)
Schaaf, Homer D., 413 Mt. Prospect av., Newark (7)
Schell, Frank R., St. Joseph's Hosp., Paterson (16)
Schimpf, Thomas, 201 Ridge st., New Milford (2)
Schopfer, Carl J., 56 Evergreen av., Bloomfield (7)
Schwartz, Jack J., 315 West End av., New York (7)
Shapiro, Myron J., 89 Lincoln Park, Newark (7)
Shapse, Joseph B., 786 Palisade av., Teaneck (2)
Shipper, Harvey, 949 Berkeley av., Trenton (11)
Silberman, Ellis L., 24 N. Hillside av., Ventnor (1)
Snyder, George P., Jr., 502 Bogert rd.,River Edge(2)
Solomon, Philip, 32 Johnson av., Newark (7)
Southard, Samuel C., 112 St. Davids pl.,AtlanticC.(1)
Spieler, Ernesta M., 536 W.111th st.,New York C.(7)
Staehle, George E., 366 S. Orange av., S. Orange (7)
Staub, Robert J., 10 Park rd., Short Hills (7)
Steinman, Rbt. C., Plainf'd & Chestn't sts.,Stelt'n(12)
Sturman, William A., 219 S.Harrison st.,E.Orange(7)
Sullivan, John E., Jr., 839 Kearny av.,Arlington(7)
Sylvan, Melvin M., 77 Vreeland av., Rutherford (2)

T

ACTIVE MEMBERS

Taber, Frederick S., 55 Paterson st.,N. Brunsw'k(12)
Taber, Leslie R., 292 Broadway, Paterson (16)
Taff, Harry, 165 Roseville av., Newark (7)
Taffet, Seymour, 55 W. Passaic av., Bloomfield (7)
Taffet, William, 379 Union av., Belleville (7)
Talmage, William G., Main st., Succasunna (14)
Talty, John C., 935 Washington st., Hoboken (9)
Tannert, Carl H., 331 77th st., N. Bergen (9)
Tansey, W. Austin, Jr., 169 Hobart av.,ShortHills(7)
Taranto, Michael, 13 E. Gibbons st., Linden (20)
Tarbell, Harold A., 13 Pennington st., Newark (7)
Tarchiani, Lucius S., 472 River st., Paterson (16)
Targan, Nathan, 27 N. Connecticut av., Atl. City (1)
Tarta, Ciro S., 654 E. 18th st., Paterson (16)
Tataryan, Hovsep, 2024 New York av.,Union City(9)
Tatem, Henry R., Jr., 272 W.Atlantic av.,Audubon(4)
Taterka, Adrian, 28 Bennington rd., Livingston (7)
Tator, Arthur E., 57 DeForest av., Summit (20)
Taylor, Halley B., Jr.,221 Hamilton av.,Paterson(16)
Taylor, Raymond A., 58 Madison av., Lakewood (15)
Teaze, Allison D., 307 Belleville av., Bloomfield (7)
Teichholz, Max H., 19 Meade av., Passaic (16)
Tell, M. Edward, 249 Lexington av., Passaic (16)
Teller, Daniel W., Jr., 28 DeHart st., Morristown(14)
Tenney, Luman H., 177 Prospect av., Princeton (11)
Tennis, Edgar M., 375 Engle st., Englewood (2)
Terhune, Charles B., 129 Summit av., Summit (20)
terKuile, Reinold W., 88 W.Ridgew'd av.,Ridgew'd(2)
Terreri, D. Joseph, 30 High st., Morristown (14)
Terwedow, Henry, 7707 Boulevard, N. Bergen (9)
Terwedow, Walter G., 518 79th st., North Bergen (9)
Teskey, Stanley, 10 Anderson rd., Bernardsville (14)
Tether, Russell K., Main st., Closter (2)
Thalheimer, Edward J., 644 Plum st., Vineland (6)
Thetford, Norman D., 68 South st., Eatontown (13)
Thomas, Alvin V., 124 W. Buck st., Paulsboro (8)

Thomas, Claude W., 28 East av., Woodstown (17)
Thomas, George N., 201 S. Eighth st., Vineland (6)
Thomas, Irene O., 350 Lafayette av., Hawthorne(16)
Thomas, John H., 270 Lenox av., South Orange (7)
Thomas, Leon H. S., 631 E. 22nd st., Paterson (16)
Thomas, Ralph B., 793 Montgomery st., Jer. City(9)
Thomas, Thomas S., Jr., 18 Elm st., Morristown (14)
Thomison, Harry E., 605 Broad st., Newark (7)
Thompson, Edward C., 373 Park av., Paterson (16)
Thompson, Frank F., Jr.,261 Orange rd.,Montclair(7)
Thompson, Kenneth W., 20 Main st., Orange (7)
Thompson, Minturn R., 530 W. Broad st.,Westf'd(20)
Thompson, P. H., 4612 Westf'd av.,Penns'k'n Tsp.(4)
Thompson, T. M., 601 S. First av., Highland Pk.(12)
Thompson, Victor, 88 W. Front st., Keyport (13)
Thompson-Bohne, Mildred H.,62 Elm st.,Summit(20)
Thompson, Carroll S., 17 Elm st., Morristown (14)
Thorne, William P., 254 Main st., Butler (16)
Thornhill, Arthur C., 47 Forest st., Montclair (7)
Thornley, William F., 495 Prospect st., Maplew'd (7)
Thron, Leopold E., 791 Broadway, Paterson (16)
Thum, Kurt W., 366 Main st., West Orange (7)
Thurm, Arthur S., 225 W. State st., Trenton (11)
Tichenor, Clifford, 154 Irvington av., S. Orange (7)
Tidaback, Austin J., 405 Wayne ter., Union (20)
Tidwell, Harold F., 6101 Boulevard, E., W. N. Y. (9)
Tilley, John A., 126 Harding rd., Red Bank (13)
Tillis, Herman H., 31 Lincoln Park, Newark (7)
Tilton, William R., 763 Broad st., Newark (7)
Timberlake, Baxter H., 5414 Ventnor av.,Ventnor(1)
Tisch, Leon, 28 S. Third av., Highland Park (12)
Tobey, Franklin J., 11 Hazelwood av., Newark (7)
Tobey, John R., 11 Hazelwood av., Newark (7)
Tobin, Joseph M., N. J. State Hosp., Marlboro (13)
Tocci, Frank, 74 Grove st., Montclair (7)
Toczek, Henry A., 391 Bergen st., Newark (7)
Tolomeo, Martin E., 5 E. High st., Bd. Brook (18)
Tolor, Stanley, 405 Westminster av., Elizabeth (20)
Tomaiuoli, Michele, 19 76th st., North Bergen (9)
Tomec, Otto C., 756 Parkway av., Trenton (11)
Tomec, Richard F., 70 Harrison av., Montclair (7)
Tomkins, William, 105 Fairmount rd., Ridgew'd (16)
Tomlins, Francis I., 97 Madison pl., Ridgewood (2)
Tomlinson, Rolland D., 502 E. Broad st., Westf'd(20)
Tompkins, Grenelle B., 52 Broad st., Flemington(10)
Topley, Howard E., Jr., 6 Oak lane, Trenton (11)
Toren, Julius A., R. D. 1, Box 95, Long Branch (13)
Torppey, John J., 472 Sanford av., Newark (7)
Toscano, George A., 364 Park st., Hackensack (2)
Towbin, Adolph, 326 Third st., Lakewood (15)
Townsend, John B., 825 Wesley av., Ocean City (5)
Townsend, Leslie M., 420 Chestnut st.,Roselle P.(20)
Toy, Calvert R., 22 Kirkpatrick st., N.Brunsw'k(12)
Tracy, George T., 222 Warren st., Beverly (3)
Traganza, Robert W., 428 Richey av.,W.Col'gsw'd(4)
Trano, Giovanni, 941 E. Jersey st., Elizabeth (20)
Trautwein, Charles F., 131 Nesbit ter., Irvington (7)
Trayner, Alfred J., 276 Engle st., Englewood (2)
Treiber, Bejamin A., 219 W. State st., Trenton (11)
Trewhella, Arthur P., 376 Fairmount av.,Jer.City(9)
Triarsi, Anthony J., 702 Third av., Elizabeth (20)
Triolo, John V., 382 Springfield av., Summit (20)
Trippe, Morton F., 702 Asbury av., Asbury Park(13)
Troedsson, Bror S., Orange Mem. Hosp., Orange (7)
Troum, Nathan, 82 Danforth av., Jersey City (9)
Truax, Alfred J., Main st., Chester (14)
Trussell, Ray E.,Hunterdon Med. Cen.,Flem'gt'n(10)
Tsucalas, James C., 29 Highland av., Jersey City (9)
Tucker, Albert B., 47 Lincoln Park, Newark (7)
Tucker, Sidney, 211 Madison av., Perth Amboy (12)
Tuly, Ralph, 134 S. Kingman rd., South Orange (7)
Tunis, Benno B., 22 Ingraham pl., Newark (7)
Turkish, Martin, 1025 Avenue C, Bayonne (9)
Turi, Amedeo E., 407 Mt. Prospect av., Newark (7)
Turner, Charles F., 151 Grove st., Montclair (7)
Turner, Rodney C., 609 Greenwood av., Trenton (11)
Tushnet, Leonard, 662 18th av., Irvington (7)
Tutela, Arthur C., 220 S. Seventh st., Newark (7)
Tweddel, George K., 239 Broadway, Paterson (16)
Tyler, Charles O., Grove st.,& Rhodes av.,Had'nf'd(4)
Tymeson, Walter R., 310 Main st., Orange (7)
Tyndall, Alice D., 127 Maple av., Red Bank (13)
Tyndall, Alice E., 263 Walnut st., Westfield (20)
Tyndall, Hugh H., 83 Highwood ter., Weehawken(9)
Tyndall, Martha W., 263 Walnut st., Westfield (20)
Tyson, Edward B., 801 Asbury av., Ocean City (5)

ASSOCIATE MEMBERS

Taylor, Wilber F., 249 Belleville av., Bloomfield (16)
Thompson, John J., Mountainside Hosp.,Montcl'r(7)
Thompson, William R., 4 W. Park av., Park Ridge(2)
Toombs, James, Mountainside Hosp., Montclair (7)
Tyler, Herman Y., 601 Hamilton av., Trenton (11)

U

ACTIVE MEMBERS

Udinsky, Hyman J., 57 Passaic av., Passaic (16)
Uhr, Jacques S., 127 Livingston av.,N.Brunsw'k(12)
Ulan, Jerome, Main st., Spotswood (12)
Ulan, Oscar, 92 Fleming av., Newark (7)
Ulmer, Chester I., 431 W. Broad st., Gibbstown (8)
Ulmer, D. H. Bartine, 199 Chestnut st., Moorest'n(3)
Ulvestad, Lawrence E., 147 Halsted st., E. Orange(7)
Underwood, J. Harris, 509 N. Broad st.,Woodbury(8)
Underwood, Robert, 345 Washington av.,Bellev'le(7)
Upham, Helen F., 305 Third av., Asbury Park (13)
Urbach, George, 181 Chancellor av., Newark (7)
Urban, George J., Jr., 40 Egan st., Fords (12)
Urbaniak, Henry S., 883 Brunswick av., Trenton(11)
Urbanski, Matthew F., 148 Market st., P. Amboy(12)
Urevitz, Abraham, 2415 New York av., Union C. (9)
Urie, Murray G., 542 Broadway, Paterson (16)
Uzzell, Edward F., 2703 Pacific av., Atlantic City (1)

V

Vaccaro, Henry J., 509 Fourth av., Asbury Park(13)
Vaczi, Stephen, 983 S. Broad st., Trenton (11)
Valentin, Irmgard, 131 S. Harrison st.,E. Orange (7)
Valiario, Frank A., 333 Clifton av., Newark (7)
Van Amberg, Robert J., 25 Trinity pl., Montclair(7)
Vandenberg, Werner, 7 S. La Clede pl., Atl. City (1)
Vanderbeck, James J., 123 Prospect st.,Ridgew'd(16)
Vanderbeek, Andrew B., 174 Broadway,Paterson(16)
Vanderbeek, Frank B., 683 E. 27th st., Paterson(16)
Vanderbeek, Stuart W., 143 Engle st., Englewood(2)
Vander Bush, Edw. F.,56 Dauntless ln.,Hartf'd,C.(16)
Vander Veer, H. Garrett, 295 M'tg'm'y st.,Bl'mf'd(7)
Van Dyke, Laura V., R.F.D.1,Box 96A, Bd.Brook(18)
Van Eerde, Albert, 339 Lafayette av., Hawth'ne(16)
Van Eerde, Albert, 501 Ainsworth st., Linden (20)
VanEmburgh, George H., 575 Belgr'e dr.,Arl'gt'n(7)
Van Gieson, Edward J., 70 Watsessing av.,Bl'mf'd(7)
Van Horn, Abram L., Peapack rd., Far Hills (18)
VanMater, John S.,61 Livingston av.,N.Brunsw'k(12)
Van Meter, Ralph H., 224 E. Main st., Moorest'n(3)
Vann, Dorothea D., 460 Engle st., Englewood (2)
Vann, Felix H., 242 Engle st., Englewood (2)
Vannatta, George W., 226 N. Park st., E. Orange (7)
Vanneman, Joseph S.,45 Princeton av.,Princet'n(11)
Van Ness, H. Roy, 444 Parker st., Newark (7)
Van Ness, Walter J., 41 Park pl., Bloomfield (7)
Van Riper, Wm.D.,Johnson & Johnson,N.Br'sw'k(12)
Van Schott, Gerard J.,Jr.,245Lex'gt'n-av.,Passaic(16)
Van Wiemokly, Seymour S.,201Sp'dw'l av.,M'r't'n(14)
Van Winkle, Charles I., 79 Ridge rd., Rutherford(2)
Van Winkle, John S., 297 Broadway, Paterson (16)
Vargish, Hildegard S.,268K'd'rk'm'k rd.,N.H'k'ns'k(2)
Vargish, Jacob, 268 Kinderk'm'k rd.,N.Hack'ns'k(2)
Vargyas, Joseph C., 116 New st., N. Brunswick(12)
Varhol, Joseph G., 466 Clifton av., Clifton (16)
Varriano, John L., 3263 Boulevard, Jersey City (9)
Vaughan, James M., 825 Kaighn av., Camden (4)
Vento, Sebastian J., 452 Hamilton av., Trenton (11)
Verdon, Robert E., 682 Anderson av., Cliffside (2)
Verga, Armand, 20 Main st., Manasquan (13)
Vermes, Leslie, 380 Rutherford av., Franklin (19)
Vermeulen, Abram, 344 Haledon av., Prosp't P. (16)
Vernaglia, Anthony P., 418 Lincoln av.,H'wth'ne(16)
Vespignani, Pasquale, 863 Montgom'y st.,Jer.City(9)
Vilardo, Ross, 125 Harrison av., Garfield (2)
Villanova, Ralph N., 266 S. Eighth st., Newark (7)
Villapiano, Joseph G., 701 Sunset av., Asbury P.(13)
Vincent, Nicholas F., 144 Harrison st., E. Orange(7)
Vinciguerra, Michael, 604Westm'ster av.,Eliz'b'h(20)
Vine, Blair, 1437 S. Broad st., Trenton (11)
Virgilio, Anthony A., 87 S. Centre st., Orange (7)
Visceglia, Frank R., 430 74th st., N. Bergen (9)
Visconti, Joseph A., 105 Newark st., Hoboken (9)
Vita, Frank J., Army (2)
Vitale, Dominic V., 749 N. Broad st., Elizabeth (20)
Viteri, Luis E., 214 Main st., Mt. Holly (3)
Vogel, H. Austin, 1060 E. Jersey st., Elizabeth (20)
Vogel, Nathan F., 297 Morris av., Springfield (20)
Vogel, Wolfgang F., 546 E. 29st st., Paterson (16)
Volpe, Donald J., 503 Central av., Hammonton (1)
Vol-Tretter, Marta, 501 W. State st., Trenton (11)
von Deilen, Arthur W., 530 Cooper st., Camden (4)
von Deilen, Henry O., 28 DeHart st., Morristown(14)
Von Hofe, Frederick H., 572 Park av., E. Orange (7)
Von Oehsen, William H., 623 4th av., Bradley B.(13)
Voorhis, Charles F., 330 Morgan av., Palmyra (3)
Vosburgh, Fred, 663 Main av., Passaic (16)
Voss, J. Landon, 212 South st., Morristown (14)
Voss, John C., 709 Thomas av., Riverton (3)
Vostrosablin, Nicholas A., 121 Grand st.,Jer.City(9)
Vreeland, Ralph J., 278 McKinley pl., Ridgew'd (16)
Vroom, William L., 88 W. Ridgew'd av.,Ridgew'd(2)

ASSOCIATE MEMBERS

Van Vooren, Wm. J., 973 Van Hout'n av., Clift'n(16)
Vogel, Helga S., 546 E. 29th st., Paterson (16)
Votos, Anthony S., 955 Queen Anne rd., Teaneck (2)

W

ACTIVE MEMBERS

Wacker, William F., 1224 Salem av., Hillside (20)
Wade, George R., 129 Chester av., Moorestown (3)
Wager, Henry P., 2600 Boulevard, Jersey City (9)
Wagner, John, 48 Wilson av., Newark (7)
Wagner, Richard, 915 Springf'ld av.,N.Provid'ce(20)
Wainright, Melvin A. R., 286 Broad st.,Red Bank(13)
Wakeley, William E., 144 Harrison st., E. Orange(7)
Wakeley, William E.,Jr.,47 Virginia av.,Livingst'n(7)
Waldron, Edward L.,910 Stuyvesant av.,Trenton(11)
Waldron, Robert E., 699 Kearny av., Arlington (7)
Walkenberg, Michael, 384 Clinton pl., Newark (7)
Walker, Ada H., 4 Columbia av., Vineland (6)
Walker, H. Burton, 4 Columbia av., Vineland (6)
Walker, Harold G., 252 Everett av., Wyckoff (16)
Walker, John C., Jr., 15 Washington st., Newark (7)
Walker, Levi M., 5407 Atlantic av., Ventnor (1)
Walker, Nelson C., 261 Summit av., Hackensack (2)
Walker, Otto, 198 Pershing av., Carteret (12)
Walker, Robert B., 108 Church st., N.Brunswick(12)
Wallace, Marc J., 165 Lakeview av., Clifton (16)
Wallach, Bernard, 74 Watchung av., N. Plainf'ld(20)
Wallack, Charles A., 23 Treacy av., Newark (7)
Wallack, Eli A., 92 Fairview av., Jersey City (9)
Wallen, Benjamin B., 217 E. Pine av., Wildwood (5)
Walsh, Charles R., 95 W. Northfield av.,Liv'gston(7)
Walsh, Ronald J., 338 S. Broad st., Elizabeth (20)
Walsh, Thomas J., 335 S. Broad st., Elizabeth (20)
Walters, George M., 158 Main st., Woodbridge (12)
Walton, Gordon G., 575 E. 28th st., Paterson (16)
Walton, Ralph W., 102 Gates av., Montclair (7)
Wandall, Frederick G., 901 S. Broadway, Pitman (8)
Wangner, W.F.,539 Mt.Ver'n Blvd.,Royal O.,Mich(7)
Wannemacher, Paul, 87 Valley Way, W. Orange (7)
Wantoch, Joseph, 14 Carteret av., Carteret (12)
Warburton, Jack C., 333 Park av., Paterson (16)
Ward, Albert J., 39 Elm st., Morristown (14)
Ward, Chauncey P., 118 S. Grove st., E. Orange (7)
Ward, Elisabeth B., 555 William st., E. Orange (7)
Ward, Leo J., 137 W. Jersey st., Elizabeth (20)
Ward, Mary, 30 Engle st., Tenafly (2)
Ward, William R., 112 Chancellor av., Newark (7)
Ward, William R., Jr., 112 Chancellor av.,Newark(7)
Ware, Carl N., N. Main st., Shiloh (6)
Warnecke, Rudolph E., 43 S. Maple av., E.Orange(7)

Warren, Charles B., 181 Prospect av., Bergenf'd (2)
Warren, Earl L., Box 1738, Paterson (16)
Warren, Jacob, 308 18th av., Paterson (16)
Warter, John P., Jr., 570 Belgrove dr., Arlington (7)
Warter, Peter J., 717 W. State st., Trenton (11)
Warwick, Ralph A., 3300 Federal st., Camden (4)
Wassing, Hans, 695 Broadway, Paterson (16)
Waterman, Samuel M., 41 Shanley av., Newark (7)
Waters, Charles H., 928 W. State st., Trenton (11)
Waters, Edward G., 39 Gifford av., Jersey City (9)
Watkins, Eugene L.,40 Franklin st.,Moorestown(14)
Watman, Anthony J.,2784 Boulevard, Jersey City(9)
Watov, Samuel E., 178 W. State st., Trenton (11)
Watts, Wilbur, 436 E. State st., Trenton (11)
Waugh, Bascom S., 1882 S. Tenth st., Camden (4)
Way, Clarence W., 4515 Landis av., Sea Isle City (5)
Wayman, Bernard R., 1100 S. Broad st., Trenton(11)
Webb, Eleanor A., 887 Springfield av., Summit (20)
Webb, Wilson D., Jr., Navy (2)
Weber, Francis C., 286 Mt. Prospect av., Newark(7)
Weber, John F., 264 Main st., South Amboy (12)
Weber, Laura E., 305 23rd st., Union City (9)
Weber, Walter D., 305 23rd st., Union City (9)
Weckel, Philip P., 1190 Broad st., Bloomfield (7)
Weeks, Belford A., 315 S. Shore rd., Absecon (1)
Weems, Don B., 105 E. Mantua av., Wenonah (8)
Wegryn, Louis S., 257 Elizabeth av., Elizabeth (20)
Weigel, Edgar W., 210 W. Jersey st., Elizabeth (20)
Weigel, Elmer P., 727 Watchung av., Plainfield (20)
Weigele, Carl E., 455 W. State st., Trenton (11)
Weimann, Max L., 803 Station av., Haddon Hts. (4)
Weinberg, C. Richard, 597 Clinton av., Newark (7)
Weiner, Aaron, 353 Union av., Paterson (16)
Weiner, Harry, 283 Franklin st., Bloomfield (7)
Weiner, Henry T., 280 Hobart st., Perth Amboy(12)
Weiner, Samuel E., 904 Pacific av., Atlantic City(1)
Weinert, Henry V., 128 Market st., Passaic (16)
Weinmann, Max H., 714 Scotland rd., Orange (7)
Weinstein, Alvin, 300 Deal Lake dr., Asbury Pk.(13)
Weinstein, Francis S., 840 S. 11th st., Newark (7)
Weinstein, Morris W., 942 Sanford av., Irvington(7)
Weinstein, Robert A., 214 Spring st., Newton (19)
Weinstock, Michael B., 1 Johnson av., Newark (7)
Weintraub, William L., 400 Broadway, Paterson(16)
Weintrob, Joseph R., 1616 Pacific av., Atl. City (1)
Weisbrod, Ferdinand G., 61 S.Munn av.,E.Orange(7)
Weiser, Edward H., 1 East Main st.. Sussex (19)
Weisman, Herbert, 273 Avenue A, Bayonne (9)
Weisman, Stephen L., 526 Broadway, Paterson (16)
Weiss, Abram, 786 Palisade av., Teaneck (2)
Weiss, Francis H., 33 Oakwood Manor, Woodbury(8)
Weiss, Fred, 129 Elizabeth av., Newark (7)
Weiss, Herman, 300 Madison av., Madison (14)
Weiss, Louis, 519 Springfield av., Newark (7)
Weiss, Morris J., 734 Avenue C, Bayonne (9)
Weiss, Samuel A., 786 Palisade av., Teaneck (2)
Weiss, Selma, 251 S. Harrison st., East Orange (7)
Weiss, William I., 299 Clinton av., Newark (7)
Weissberg, Jonas, 470 Jefferson av., Elizabeth (20)
Weissberg, Wm. W., 800 N. Broad st., Elizabeth (20)
Weissman, Meyer T., 1137 E. Jersey st., Elizab'h(20)
Weitz, Abraham, 3314 Princeton av., Fresno,Cal.(20)
Welch, William J., 245 Nassau st., Princeton (11)
Welkind, Allen A., 32 Johnson av., Newark (7)
Weller, Arthur, 19 Hillyer st., Orange (7)
Wells, William C. V., 230 Hazel av., Delanco (3)
Weltchek, Herbert, 439 Jersey av., Elizabeth (20)
Wender, Harold, 140 Clinton st., S. Bound Brook(18)
Wentz, Irl Z., 224 Webster av., Seaside Heights(15)
Wentzell, J. Earl, 5 E. Mantua av., Wenonah (8)
Wescoat, George N. A., 202 W. Main st.,Moorest'n(3)
Wesson, Harrison R., 63 S.Fullerton av.,Montcl'r(7)
West, Harold, 606 F st., Belmar (13)
Westerhoff, Peter D., 51 Highland av.,MidlandP.(16)
Westney, F. Rolfe, 7602 Ventnor av., Ventnor (1)
Weston, Clifford G., 27 Woodland av., Glen Ridge(7)
Weston, Elaine, 40 Midland av., Arlington (9)
Wetherhold, John M., 20 Ziegler Tract, Penns G.(17)
Wetterberg, Louis F., Amboy av., Woodbridge (12)
Whaland, Berta, 117 Atlantic st., Bridgeton (6)
Whalen, Edward C., 942 Cooper st., Camden (4)
Wheeler, James A. V., 85 Van Reypen st.,Jer.City(9)
Wheeler, William K., 140 Roseville av., Newark (7)
Whelan, Edward P., 460 Franklin av., Nutley (7)
Whelan, Vincent, 67 E. Front st., Red Bank (13)
Whigham, Herbert H., Jr.,38 Madison av., M'tcl'r(7)
Whims, Clarence B., 5407 Atlantic av., Ventnor (1)
Whitaker, Darrell W.,1554 Princeton av.,Trent'n(11)
Whitaker, Henry J., 10 S. Broadway, Pitman (8)
Whitaker, John C., 402 Lippincott av., Riverton (3)
White, Ensley M., Jr., 118 Branch av.,Red Bank(13)
White, Frank S., 916 Red rd., Teaneck (2)
White, Harry J., Roosevelt Hospital, Metuchen (12)
White, Hugh M., 901 Summit av., Jersey City (9)
White, R. Rostin, 644 Shore rd., Somers Point (1)
White, Robert R., 144 Harrison st., East Orange (7)
White, Thomas J., 50 Glenwood av., Jersey City (9)
Whitken, Albert I., 1056 North av., Elizabeth (20)
Whitman, Lloyd B., 7 W. Clinton av., Bergenfield(2)
Whitney, Leon H., 540 Broad st., Newark (7)
Wiant, Herman E., 120 Windsor av., Haddonf'd (4)
Wichman, Heins, 28 DeHart st., Morristown (14)
Widdowson, William W.,Bell Tele. Lab.,Mur.Hill(20)
Widetsky, Alfred, 85 Broadway, East Paterson (2)
Wielunska, Genevieve V., 90 Lexington av.,Jer C.(9)
Wiener, David, 196 Weequahic av., Newark (7)
Wiesenfeld, Benjamin, 570 Barron av., Woodbr'e(12)
Wiesenfeld, Paul, 138 Market st., Perth Amboy (12)
Wiesler, Howard M., Drawer N, Trenton (11)
Wiggins, Ulysses S., 1025 S. Fourth st., Camden (4)
Wikoff, John L., 799 Pennington av., Trenton (11)
Wilbur, Franklin L., 515 Eighth av., Asbury Pk.(13)
Wilcox, Frank A., 329 60th st., West New York (9)
Wilcox, John M., III, 415 Lake av., Pitman (8)
Wildman, Edward D.,119 Chester av.,Moorestown(3)
Wilentz, William C., 188 Market st., P. Amboy (12)
Wiley, Herman O., 326 Shrewsbury av.,RedBank(13)
Wilkins, Stanley O., 47 E. Front st., Red Bank (13)
Willan, Edward H., 74 S. Munn av., East Orange (7)
Willetts, Arthur T., 129 Summit av., Summit (20)
Willey, F. Parker, 153 Roseville av., Newark (7)
Willey, Harry S., Jr., 112 Broad st., Red Bank (13)
Williams, David P., 116 Lake dr.,Mountain Lks.(14)
Williams, Edith B., 70 Anderson st., Hackensack (2)
Willliams, Frank A., 324 W. Jersey st., Elizabeth(20)
Williams, Harry D., 829 W. State st., Trenton (11)
Williams, John J., 78 Walnut st., Newark (7)
Williams, John R., 715 Palisade av., Cliffside P. (2)
Williams, Leonard D.,726 Watchung av.,Plainf'd(20)
Williams, Manley C., 735 E. Milton av., Rahway(20)
Williams, Raymond A., 7207 Atlantic av.,Ventnor(1)
Williams, William C., 9 Ridge rd., Rutherford (2)
Williams, William C., Black Horse Pk.,Had'n Hts.(4)
Williams, William E., 9 Ridge rd., Rutherford (2)
Willner, Irving, 18 Waverly av., Newark (7)
Willner, Milton, 822 S. 12th st., Newark (7)
Willner, Philip, 852 S. 11th st., Newark (7)
Willson, James H., 144 Harrison st., East Orange(7)
Wilner, Daniel, 3 S. Vendome av., Margate City (1)
Wilson, Charles W., 636 Wood st., Vineland (6)
Wilson, Harrison B., 430 Union st., Hackensack (2)
Wilson, Herbert H., 24 Bank st., Bridgeton (6)
Wilson, J. Harmon,Jr.,85 Halsted st.,East Orange(7)
Wilson, Jon M., Army (18)
Wilson, Lawrence A., 114 N. Shore rd., Absecon (1)
Wilson, Lester R., 3320 Federal st., Camden (4)
Wilson, Robert B., 48 Riverside av., Red Bank (13)
Winder, Miles S., Jr., 601 Grand av., Asbury Pk. (13)
Winfield, Irwin, 493 Central av., Newark (7)
Winn, James S., 51 Livingston av., N. Brunsw'k(12)
Winn, Samuel L., 1616 Pacific av., Atlantic City (1)
Winn, William M., 128 Broad st., Perth Amboy (12)
Winokur, Gerald L., 681 Bergen av., Jersey City (9)

Winslow, John, 210 Orange rd., Montclair (7)
Winslow, John H., 29 S. Valley av., Vineland (6)
Winston, Julius, 1616 Pacific av., Atlantic City (1)
Winter, Carl M., 1518 Collings rd., Camden (4)
Winter, Egon W., 825 S. Tenth st., Newark (7)
Winter, Gladys C., 790 Grange rd., Teaneck (2)
Winters, Walter M., 288 Broadway, Paterson (16)
Wise, John S., 1926 Riverside dr., Trenton (11)
Witkoff, Benjamin, 215 Terrace av., Hasbr'k Hts.(2)
Witmer, John D., 456 Middlesex av., Metuchen (12)
Witte, C. Norman, 422 River av., Point Pleasant(15)
Wittenborn, Wm.F.J.,1635 Brunsw'k av.,Trenton(11)
Wolf, Erich, 43 Grove st., Passaic (16)
Wolf, Frank A., 494 S. Main st., Phillipsburg (21)
Wolf, Israel J., 231 East 31st., st., Paterson (16)
Wolf, Raymond E., 251 Ridgewood av.,GlenRidge(7)
Wolfe, Edward E., 895 Queen Anne rd., Teaneck (2)
Wolfe, Humphrey D., 23 Spring st., Penns Gr. (17)
Wolfe, William W., 383 Mulberry st., Newark (7)
Wolff, Herbert M., 942 W. State st., Trenton (11)
Wolff, Jerome M., 935 Park av., Plainfield (20)
Wolfsie, Jacob H., 221 Hillside rd., Linden (20)
Wolfson, Harry, 356 Park av., Paterson (16)
Wolgin, Philip L., 445 Elmora av., Elizabeth (20)
Wollack, Alfred, 9 Park av., Park Ridge (2)
Wolowitz, Harry B., 20 Spring Val.av.,Hackens'k(2)
Woltman, Charles E., 805 Garden st., Hoboken (9)
Woltz, Sidney, 2206 New York av., Union City (9)
Wood, E. LeRoy, 225 Ballantine Pkwy.,Newark (7)
Woodman, Charles B., 212 South st., Morristown(14)
Woodruff, Ralph G., Main st., Englishtown (13)
Woolbert, Edwin, 206 E. Verona av., Pleasantville(1)
Worcester, George F., 220 Engle st., Englewood (2)
Worcester, John T., 220 Engle st., Englewood (2)
Work, John L., Mountainside Hosp., Montclair (7)
Wren, James C., Main st., Closter (2)
Wright, Herman W., 540 N. Broadway, Pitman (8)
Wright, Ralph S., 517 Cooper st., Camden (4)
Wright, Robert E., 172 Concord dr., River Edge (7)
Wroblewski, Benj. M., 1166 Thurman st., Camden (4)
Wry, Dean A., 234 Dayton av., Clifton (16)
Wry, Orlin V., 95 High st., E. Rutherford (2)
Wuerthele, Virginia E., 560 Mt. Prosp't av.,New'k(7)
Wuester, William O., 815 Salem av., Elizabeth (20)
Wujciak, Henry J., 195 Warwick st., Newark (7)
Wurts, Margaret M., 27 Wellesley av., U. Montcl'r(7)
Wurzel, Milton, 2 Farley av., Newark (7)
Wyatt, Joseph H., 135 Clinton av., Newark (7)
Wyker, Arthur W., 57 Park pl., Bloomfield (7)
Wylly, Martin D., 320 Park av., Orange (7)
Wyman, Edward H., 401 Lawrence st.,Burl'gton (3)

ASSOCIATE MEMBERS

Wagman, Murray, 192 Amboy av., Metuchen (12)
Wallis, J. Kendall, 230 Nassau st., Princeton (11)
Ware, Charles I., 174 N. Main st., Pleasantville (1)
Warner, Charlotte R., 498 Engle st., Englewood (2)
Williams, Hugh R., 55 No. Fifth av.,HighlandPk.(12)
Winkler, Miriam H.,14-06 Fair Lawn av.,F.Lawn(16)
Wortzel, Martin H., 88 Ashland av., East Orange (7)

Y

ACTIVE MEMBERS

Yablonsky, Max, 30 Shanley av., Newark (7)
Yachnin, Samuel C., 127 Prospect st., Passaic (16)
Yadkowsky, Emanuel, 637 High st., Newark (7)
Yaeger, John, 61 Highland av.,Yardville Hts. (11)
Yager, J. Allen, 420 Broadway, Paterson (16)
Yaguda, Asher, 61 Lincoln Park, Newark (7)
Yanowitz, Bernard, 165 Jewett av., Jersey City (9)
Yates, Glen L., 67 Union st., Montclair (7)
Yeaton, William L., Jr., 204 11th st., Hoboken (9)
Yeaw, Ralph C., 310 Broadway, Paterson (16)
Yelin, Gabriel, 657 Cameron rd., South Orange (7)
Yellin, Charles H., 916 Jersey av., Elizabeth (20)
Yingling, Paul L., 804 Wesley av., Ocean City (5)
Yolken, Harry, 246 E. 31st st., Paterson (16)
Yontef, Reuben, 851 Avenue C, Bayonne (9)
Yood, Harold S., 401 Grant av., Plainfield (20)
York, Jack S., 63 Baldwin av., Newark (7)
York, James L., 331 River rd., New Milford (2)
York, Wilbur H., Box 110, Princeton (11)
Yorke, Benjamin, 908 Main st., Paterson (16)
Yorke, Edward T., 1717 N. Wood av., Linden (20)
Young, Alfred D., 425 Mt. Prospect av., Newark (7)
Young, Franklin C., 120 Summit av., Summit (20)
Young, George J., 60 Maple av., Morristown (14)
Young, I. Henry, 220 Columbia av., Irvington (7)
Young, James L., 68 Mountain av., Somerville (18)
Young, Ralph A., 842 N. Wood av., Linden (20)
Young, William V., 253 Mt. Prospect av., Clifton (7)
Yuckman, Robert O., 701 Madison av., Elizabeth(20)
Yudkoff, William, 770 Avenue A, Bayonne (9)
Yurevich, Antony, E. County Line rd.,Lakewood(15)

Z

ACTIVE MEMBERS

Zacchino, Arnold A., 1001 Anderson av., Palisade (2)
Zacher, Andrew A., 6 Rahway rd., Millburn (7)
Zager, Saul, 40 Spruce st., Newark (7)
Zahn, Jack R., 90 Paterson av., Gibbstown (8)
Zalewski, Irene J., 181 Paulison av., Passaic (16)
Zappala, John, 47 W. Main st., Penns Grove (17)
Zbar, Joseph E., 2690 Boulevard, Jersey City (9)
Zdanowicz, Stefan J., 117 Grand av.,Hackettst'n(21)
Zehnder, A. Charles, 188 Roseville av., Newark (7)
Zeitlin, Herman H., 943 N. Wood av., Linden (20)
Zeltmacher, Kurt, 308 W. State st., Trenton (11)
Ziccardi, Anthony V., 201 W. Main st., Maple Sh.(3)
Zick, Clara U., 60 Highland rd., Glen Rock (16)
Ziegler, James E., Army (14)
Zigarelli, Joseph F., 275 E. 18th st., Paterson (16)
Zimmer, Louis, 622 Varsity rd., South Orange (7)
Zimmerman, Coler, 6 Colony dr., S., W. Orange (7)
Zimmerman, Robert F.,26 Maple av.,Morristown(14)
Zimskind, Joshua N., 210 W. State st., Trenton (11)
Zingali, John A., 103 Glenridge av., Montclair (7)
Zinkin, Solomon B., 328 Second st., Lakewood (15)
Zirpolo, Gene A. V., 1128 Bryant st., Rahway (20)
Zitani, Alfred M., 937 Washington st., Hoboken (9)
Zuck, Arthur C., 22 Broad st., Washington (21)
Zucker, Isadore, 112 Shanley av., Newark (7)
Zuckerberg, Irving, 13 E. 22nd st., Bayonne (9)
Zuckerman, David E., 568 Broadway, Paterson (16)
Zuckerman, Louis, 568 Broadway, Paterson (16)
Zukerberg, Nathan, 21 Johnson av., Newark (7)
Zvaifler, Nathan, 46 Wilbur av., Newark (7)
Zweibel, Leonard, 871 S. 11th st., Newark (7)
Zweigel, Isidore, 22 Monticello av., Newark (7)
Zybulewski, Edmund A., 410 Bergen st., Newark (7)

ASSOCIATE MEMBERS

Zarski, Walter, 341 Walnut st., Newark (7)
Zellmann, Henry E., 160 Prospect st.,East Orange(7)
Zheutlin, Abraham, 88 Chancellor av., Newark (7)
Zimmerman, Milton, 231 Dayton av., Clifton (16)
Zutz, Harry, 10 Clinton pl., Newark (7)

COUNTY HONORARY-EMERITUS MEMBERS

Altman, Hon. Joseph, Schwehm Bldg., Atl. City (1)
Areson, William H., Box 1235, Desoto, Fla. (7)
Atwell, David R., East Orange (9)
Baird, Thompson M., 939 Bay av., Pt. Pleasant (7)
Barber, Robert F., Farmingdale (13)
Becker, Leo V., 69 Ward st., Paterson (16)
Beshlian, Hagop K., 7 Lee Pl., Paterson (16)
Birdsall, Clarence A., 1016 21st av., St.Pet'sb'g,F.(7)
Brown, Hon. Elmer W., Guar.Trust Bldg.,Atl.City(1)
Bullen, Victor E., 148 Hamilton av., Paterson (16)
Burbank, Hugh E., 262 Stuyvesant av., Lyndh'st(2)
Burnett, Charles B., 109 Main st., South River (12)
Carlisle, John H., 199 Aycrigg st., Passaic (16)
Carlough, David J., 426 Ellison st., Paterson (16)
Carman, Fletcher F., 21 Parkway. Montclair (7)
Chamberlain, Aims R., 100 Maplew'd av.,Maplew'd(7)
Chattin, J. Franklin, Ward Homestead, Maplew'd(7)
Coghlan, Jasper, 540 Parker st., Newark (7)
Connell, John, 821 Bergen av., Jersey City (9)
Craig, Henry A., 315 William st., Somerville (18)
Crounse, David R., 84 Broadway, Passaic (16)
Davison, Royden W., S.1st st.& 2nd av.,Miami,Fl.(11)
Dias, Joseph L., 4618 Sylvan Ramble, Tampa, Fla.(7)
Donovan, William F., Ashley av., Brielle (13)
Duncan, Owsley B., 414 Ellison st., Paterson (16)
Eaton, Arthur T., 201 4th av., Haddon Heights (4)
Elmer, Matthew K., 3 Franklin st., Bridgeton (6)
Ely, Lancelot, Point o' Woods, Toms River (18)
Emerson, Linn. 303 Park av., Orange (7)
Farley, Hon. Frank S., Schwehm Bldg., AtlanticC.(1)
Fell, Alton S., 18 Lee av., Trenton (11)
Flitcroft, Wm., 214 E. College av., Waukesha,W.(16)
Foster, Herbert W., 2 Erwin Park, Montclair (7)
Gille, Hugo, 149 Congress st., Jersey City (9)
Glazebrook, Francis H.,Honeys'kle W'ds,Rums'n(14)
Golding, Harry N., 180 Carroll st., Paterson (16)
Guidi, Guido M., 212 Christine st., Elizabeth (20)
Haight, Harry W., 118 Raritan av.,Highland Pk.(12)
Halsey, Levi W., 160 Gordonhurst av., Montclair (7)
Hampton, George R.,11 Juniper dr.,Orange,Conn.(14)
Harman, William J.,100 S.Gouveneur av.,Trent'n(11)
Hartwell, H. Ameroy, 77 Boulevard, Weehawken (9)
Harvey, John W., 818 Avenue C, Bayonne (9)
Henry, Frank C., 215 Smith st., Perth Amboy (12)
Herrman, William G., 211 Norwood av., Deal (13)
Hill, John A.. 511 Cedar av., Allenhurst (13)
Hutchinson, A. Dunbar, 913 W.State st.,Trenton(11)
Jones, Granville L.,Eastern St.Hosp.,Will'sb'g,V.(13)
Kay, Clarence R., Main st., Peapack (18)
Keegan, Thomas D., P. O. Box 12. Deal (9)
Kooperman, Barnett, 321 60th st.,West New York(9)
Krans, Edward S., 920 Park av., Plainfield (20)
Lawrence, William H., DeLand, Fla. (20)
Leonard, George F., 63 N. Fifth av.,Highl'n Pk.(12)
Lowy, Otto, 59 Edgewood av., West Orange (7)
Maclay, Joseph A., 239 Broadway, Paterson (16)
Marcus, Joseph H., Los Angeles, Calif. (1)
McCullough, John H., 523 E. State st., Trenton(11)
McCullough, Walt. A.,295Baylston av.,Dayt'aB.,F.(7)
Mecray, Paul M., 405 Cooper st., Camden (4)
Meeker, Irving A., 117 Bellevue av., U. Montcl'r (7)
Meloney, Lester F., 179 Second st., Clifton (16)
Meyer, William, 2128 New York av., Union City (9)
Mierau, Ernest W., 1092 Sanford av., Irvington (7)
Mills, Clifford, 36 Maple av., Morristown (14)
Mitchell, Charles R., 311 Broadway, Paterson (16)
Morrow, Joseph R., 2214 Granada Blvd.,C. Gab.,F.(2)
Murn, Charles J., 48 Smith st., Paterson (16)
Neal, Charles B., 3rd & Pine avs., Millville (6)
Oram, Joseph H., 495 Broadway, Paterson (16)
Orton, George L., 196 Elm av., Rahway (20)
Pearlstein, Frank, 325 60th st., West New York (9)
Pratt, William H., 516 Cooper st., Camden (4)
Preston, Perry B., 12 Palm st., Newark (7)
Price, Nathaniel G., Sarasota, Fla. (7)
Ransohoff, Nicholas S., 138 Bath av., L. Branch (13)
Ranson, Briscoe B.,Jr.,120 Harrison st.,E. Orange(7)
Richardson, Arthur H., 60 Orange rd., Montclair (7)
Richardson, Emma M., 581 Stevens st., Camden (4)
Ritter, John J., Plainfield, Mass. (16)
Roemer, Jacob, 591 East 27th st., Paterson (16)
Rosecrans, James H., 826 Hudson st., Hoboken (9)
Russell, David L., 690 Bergen av.. Jersey City (9)
Salsburg, Hon. Paul, Guar. Trust Bldg., Atl. City (1)
Schachter, Harry A. H., 52 Jerome av., Deal (7)
Scribner, Charles H., Hamburg Tpk., Paterson (16)
Selinger, Samuel, 212 Cornell dr., L. Worth, Fla.(9)
Sexsmith, Geo. H., The Arcady, Los Angeles, Cal. (9)
Sill, John B., Fort Lauderdale, Fla. (11)
Simkins, Raymond,221 W.Commerce st.,Bridget'n(6)
Slocum, Harry B., 464 Church st., L. Branch (13)
Smith, Byron J., 47 Carlton st., East Orange (7)
Smith, Joseph J., 325 13th av., Newark (7)
Snavely, Earl H., 210 N.10th av.,Jacks'nv'e B.,Fla.(7)
Sommer, George N. J., 120 W. State st., Trenton(11)
Spencer, Ira T., 152 Main st., Woodbridge (12)
Stewart, Edwin F., 94 Fair Haven rd., F. Haven(13)
Szerlip, Leopold, 43 Shepherd av., Newark (7)
Teeter, Charles E., 418 Orange st., Newark (7)
Thomas, Harry G., 54 W.40th st.,New YorkCity (13)
Thorne, William P., 254 Main st., Butler (16)
Tidaback, John D., 52 Beauvoir av., Summit (20)
Tidwell, George W., 56 Walnut st., Rutherford (2)
Timlin, James W., 64 Beech st., Arlington (9)
Turner, Irvine F. P., Titusville (11)
Twitchell, Adelbert B.,120 S.Harris'n st.,E.Orange(7)
Tyrrell, George W., 380 State st., Perth Amboy (12)
Tyson, Frances B., 101 Leonia av., Leonia (2)
Vanderbeek, Andrew B.,174 Broadway, Paterson(16)
Vander Clock, Cornelius, 178 Greg'y av., Passaic(16)
Van Dyke,Joseph S.,42 Palisade Blvd.,PalisadesP.(2)
Van Schott, Gerard J.,Jr.,245 Lex'gton av.,Pas'c(16)
Walton, Gordon G., 575 E. 28th st., Paterson (16)
Ward, Gertrude, 49 Park pl., Bloomfield (7)
Whittaker, Neil M., 714 Cedar lane, Teaneck (2)
Williams, Hiram, Box 266, Montclair (16)
Woelfle, Henry E., 223 Prospect st., East Orange (9)
Wood, Oran A., 128 W. Broad st., Paulsboro (8)
Worthington, Joseph A.,609 Fourth av.,Bradl'yB.(13)
Wrensch, Alexander E., 79 Valley rd., Montclair (7)

COUNTY COURTESY MEMBERS

Barab, Barney M., D.D.S., 1616 Pacific av.,Atl.C.(1)
Benedict, Mitchell M., Fort Monmouth (13)
Berger, A. E., D.C., 2828 Pacific av.,Atlantic City(1)
Berry, A. Erwin, 1846 Teaneck rd., Teaneck (2)
Carey, Benjamin, 142 Second av., Westwood (2)
Coca-Fernandez, Arthur F.,425 Grant av.,Oradell(2)
Denison, Ward C., 316 Broadway, Paterson (2)
Duffy, Robert W., 314 Hamilton av., Hasbr'kHts.(2)
Fazio, Vincent J., 227 Augustus st., S. Amboy (13)
Fitzgerald, Joseph M., 111 East 61st st., N. Y. C. (2)
Franklin, Sidney, 172 Lowell av.,Youngst'n,Ohio(2)
Giannasio, Joseph, Woolworth Bldg.,L. Branch (13)
Hardy, Stanton M., Hamilton st., Montvale (2)
Jonas, Charles S., D.D.S., 101 S. Indiana av.,Atl.C.(1)
Kassel, Mortimer H.,34 Elmwood ct.,East Paters'n(2)
Knowles, Frederick, 214 New York Blvd., S. Girt(13)
Larkey, Irving G., 95 Shanley av., Newark (16)
Lewin, Michael L., 580 Broadway, Paterson (2) (16)
Mally, Manuel J., D.D.S.,1900 Pacific av.,Atl. City(1)
Martucci, Paschal C., D.C., 2801 Pacific av., Atl.C.(1)
Mayer, David McC., 170 Ridge rd., Rutherford (2)
McQuade, John S., D.D.S., 2801 Pacific av., Atl. C.(1)
Murphy, George E., 900 Queen Anne rd., Teaneck(2)
Navarra, Simone, Rumson rd., Rumson (13)
Opitz, Russell B., 218 Bridle way, Palisade (2)
Otvos, Emery G., 808 Fairview lane, Palisade (2)
Petrone, John C., 35 Park av., Suffern, N. Y. (2)
Rechtman, A. M., 255 S. 17th st., Philadelphia, Pa.(1)
Schopfer, Carl J., 56 Evergreen av., Bloomfield (16)
Slaff, Florence, 16 Grove st., Passaic (16)
Speranza, Joseph J., 700 Ackerman av.,Glen Rock(2)
Starkes, Col. Carlton C., 31 Garfield av., Linwood (1)
Steigerwald, C. S., D.C., J'ks'n & Atl'tic avs.,Atl.C.(1)
Twinem, Francis P., 450 Summit av.,Hackensack(2)
Vance, Maude V., 808 Fairview lane, Palisade (2)
Wright, Howard A., 948 Maple av., Ridgefield (2)

MEMBERSHIP SUMMARY

	Active	*Associate*
Atlantic	144	7
Bergen	383	21
Burlington	66	..
Camden	257	—
Cape May	33	..
Cumberland	73	..
Essex	1268	43
Gloucester	55	..
Hudson	485	..
Hunterdon	27	..
Mercer	268	16
Middlesex	208	15
Monmouth	195	12
Morris	140	..
Ocean	44	..
Passaic	461	35
Salem	31	..
Somerset	66	..
Sussex	34	.
Union	463	..
Warren	19	..
	4720	149